

2026 SEMICONDUCTOR PRODUCT GUIDE BOOK

World's Excellent Semiconductor Company

BJT
DIODE
MOSFET
IGBT
IC

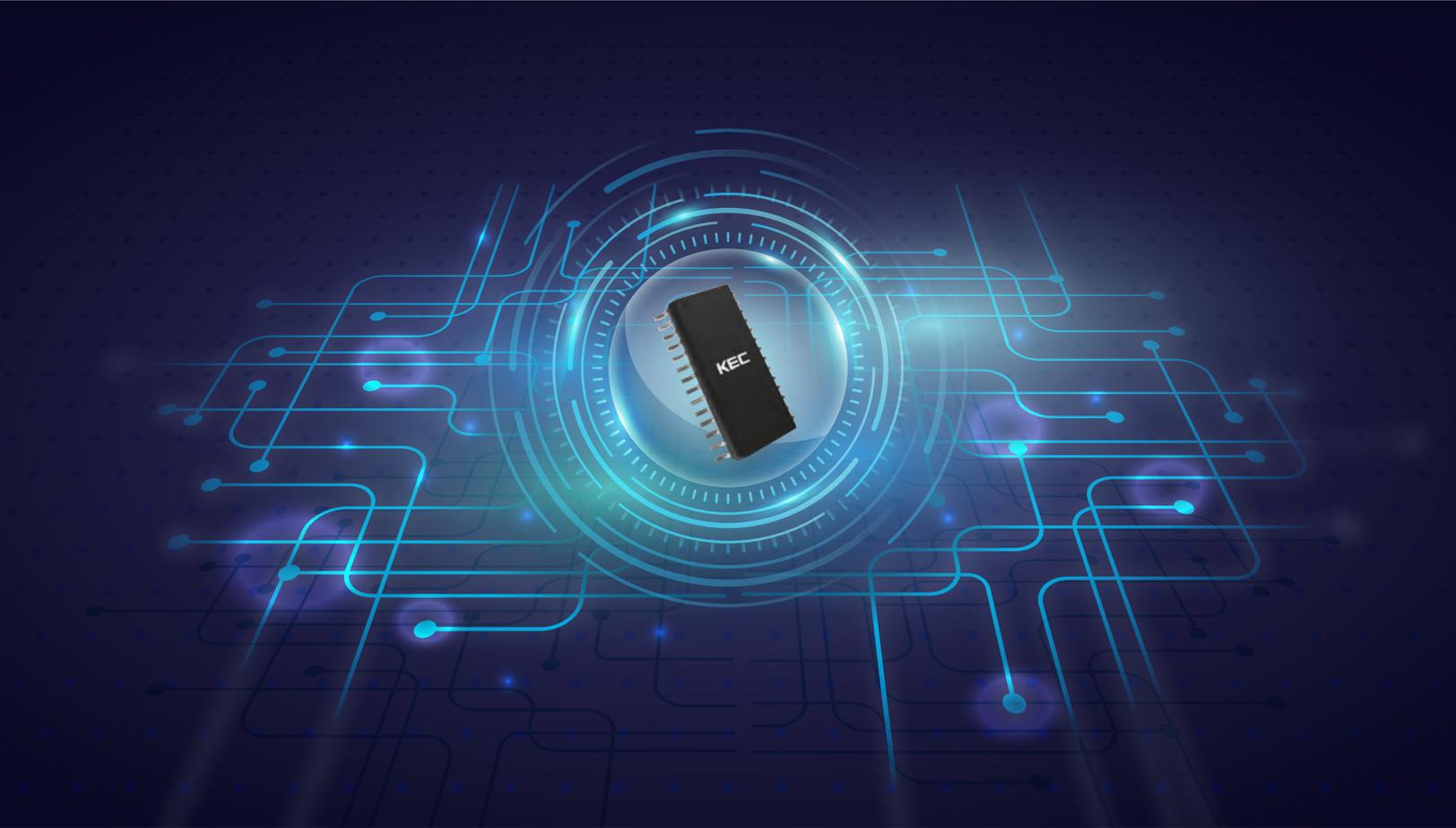


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1. The products described in this data are intended to be used in general purpose electronic equipment (Office equipment, telecommunication equipment, measuring equipment, home appliances)
2. When you intend to use these products with equipment or device which require an extremely high level of reliability and special applications (such as air travel, aerospace, transportation equipment, life support system and safety devices) in which special quality and reliability and the failure or malfunction of products may directly jeopardize or harm the human body or damage to property and any application other than the standard applications intended, please be sure to consult with our sales representative in advance.
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5. What are described in the data may be changed without any prior notice to reflect new technical development. Please confirm that you have received the latest product standards or specification before final design, purchase or use.



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BJT

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PNP Transistor (V_{CE0} : -12V ~ -65V)

V_{CE0}	I_c [A]	ULP-3	VSM	ESM	TES6	USM	USV	US6	TSM	TS6
		 (1.0 X 0.6)	 (1.2 X 0.8)	 (1.6 X 0.85)	 (1.6 X 1.2)	 (2.0 X 1.25)	 (2.0 X 1.25)	 (2.0 X 1.25)	 (2.9 X 1.6)	 (2.9 X 1.6)
-12V	-500mA			KTA2012E				KTX213U		
	-1.5A					KTA1532U				
-20V	-1								KTA1531T	
	-1.5A								KTA1532T	
	-3A								KTA1535T	
	-5A								KTA1536T	
-25V	-1.5A									
-30V	-100mA									
	-500mA					KTA2015				KTX111T
	-800mA									
	-1.5A									
	-2A								KTA1544T	
	-3A								KTA1542T	
-40V	-200mA					2N3906U				
	-600mA									
	-5A									
-45V	-100mA					BC857W				
	-200mA									
	-800mA									
-50V	-150mA	KTA1504UL	KTA2014V	KTA2014E	KTX101E KTA701E	KTA2014	KTA501U	KTA701U KTX101U		
	-500mA									
	-1A								KTA1551T	
	-2A									
	-3A								KTA1552T	
-60V	-600mA					KTN2907AU				
	-1A									
	-3A									
	-5A									
-65V	-100mA									

PNP Transistor($V_{CE0} : -12V \sim -65V$)

SOT-23  (2.93 X 1.3)	SOT-89  (4.7 X 2.5)	SOT-223(1)  (6.4 X 3.5)	DPAK  (6.0 X 6.1)	TO-92 	TO-92L 	TO-126 	TO-220IS 
	KTA1001						
			KTA1242D	KTA1243	KTA1241		
MPS8550S							
				BC558			
KTA1505S KTC9012S MMBTA63				KTA1270			
KTA1298 KTC8550S	KTA1664			KTA1271			
	KTA1663						
				KTA1282	KTA1273		
						KTB772	KTA1658
KN3906S 2N3906S				2N3906			
KN4403S				KN4403			
		KTA1545W					
BC857 BC860				BC557			
				KTA539			
BC807				BC327			
KTA1504S KTC9015S				KTA1266 KTA733 KTA733B KTA1015 KTA200			
					KTB764		
	KTA1666		KTA1718D		KTA1281	KTA1715	
	KTB1124				KTB985		
KTN2907AS KN2907AS MMBTA55 KTX304S				KN2907A KTN2907A			
	KTA1668			MPS751 KTA708			
			KTA1040D				KTA1046 KTB1424
			KTA1385D			KTB1151	
BC856				BC556			

PNP Transistor(V_{CE0} : -80V ~ -600V)

V_{CE0}	I_c	TS6	SOT-23	SOT-89	DPAK	TO-92	TO-92L
		 (2.9 X 1.61)	 (2.93 X 1.3)	 (4.75 X 2.5)	 (6.6 X 6.1)		
-80V	-400mA			KTA1662			KTA1274
	-500mA	KTX711T	MMBTA56				
	-1A			KTB1260			KTB1241
	-3A				KTA1041D		
	-4A						
	-6A						
	-7A						
-100V	-1A						KTA1572
	-2A						
	-3A						
	-5A				KTA1042D		
	-6A						
	-25A						
-120V	-100mA					KTA1268	
	-800mA			KTA1661			KTA1023
	-1A				KTA1045D		
	-1.2A						
	-5A						
	-10A						
-140V	-10A						
	-12A						
-150V	-50mA						KTA1024
	-600mA		2N5401S			2N5401C 2N5401	
	-10A						
	-15A						
-160V	-1A						KTA1275
	-1.5A				KTA1225D		
-180V	-1.5A						
	-2A						
-200V	-100mA						KTA1070
-230V	-1A						
	-15A						
-250V	-50mA					BF423	
-300V	-50mA					BF421	
	-100mA						
	-500mA		MMBTA92			MPSA92	
-400V	-100m						
	-300mA					MPSA94	
	-500mA						KTA1277
	-2A				KTA1862D		
-600V	-1A				KTA1807D		

NPN Transistor(V_{CE0} : 10V ~ 65V)

V_{CE0}	I_c	VSM	ESM	TESV	TES6	USM	US6	TSM	TSV	TS6
		 (1.2 X 0.8)	 (1.6 X 0.85)	 (1.6 X 1.2)	 (1.6 X 1.2)	 (2.0 X 1.25)	 (2.0 X 1.25)	 (2.9 X 1.6)	 (2.9 X 1.6)	 (2.9 X 1.6)
10V	2A									
12V	100mA	KTC3770V				KTC3770U				
	500mA	KTC4072V	KTC4072E		KTC802E					
20V	300mA									KTC812T
	1A							KTC3531T		
	1.5A							KTC3532T		
	2A									
	3A							KTC3535T		
	5A									
	7.5A									
25V	1.5A									
30V	100mA									
	400mA									
	500mA					KTC4076				KTX111T
	800mA									
	1.5A									
	2A							KTC3544T		
	3A							KTC3542T		
40V	200mA									
	600mA					KTN2222AU				
	2A									
45V	100mA					BC847W				
	200mA									
	500mA									
	800mA									
50V	150mA	KTC4075V	KTC4075E	KTC601E	KTC801E KTC811E KTC812E KTX101E	KTC4075	KTC801U KTC811U KTC812U KTX101U			
	1A							KTC3551T		
	2A									
	3A							KTC3552T		
60V	500mA									
	1A									
	3A									
	4A									
	5A									
65V	100mA									

NPN Transistor(V_{CE0} : 10V ~ 65V)

SOT-23	SOT-89	DPAK	TO-92	TO-92L	TO-126	TO-220IS
 (2.93 X 1.3)	 (4.7 X 2.5)	 (6.0 X 6.1)				
				KTC3226		
KTC3770S						
KTC2875 KTD1304 KTC2875AS			KTC2874 KTD1302			
			KTC3266			
		KTC3072D				
	KTC3528					
MPS8050S						
BC848			BC548 BC549			
MMBTA517						
KTC3876S KTC9013S MMBTA13			BC517 KTC3202 MPSA13			
KTC3265 KTC8050S	KTC4376		KTC3203			
	KTC4375					
				KTC3205		
					KTD882	KTC4369
KN3904S 2N3904S			KN3904 2N3904			
KTN2222AS KN2222AS KN4401S			KN2222A KN4401 KTN2222A			
				KTC3964		
BC847 BC850			BC547			
			KTC815			
			KTC200			
BC817			BC337			
KTC3295 KTC3875S KTC9014S			KTC3112 KTC3198 KTC945B KTC945 KTC1815		KTC3114	
	KTD1003			KTD1028		
	KTC4379	KTC2815D		KTC3209	KTC2814	
	KTD1624			KTD1347		
MMBTA05						
	KTC4378		MPS651 KTC1008	KTD863		
		KTC2020D KTC2825D KTC2030D				KTC2026 KTD2058 KTC2036
					KTD1411	KTC1003
		KTC5103D			KTD1691	
BC846						

NPN Transistor(V_{CE0} : 80V ~ 400V)

V_{CE0}	I_c	TSM	TS6	SOT-23	SOT-89	DPAK	TO-92	TO-92L
		 (2.9 X 1.61)	 (2.9 X 1.6)	 (2.93 X 1.3)	 (4.7 X 2.5)	 (6.6 X 6.1)		
80V	400mA				KTC4374			KTC3227
	500mA		KTX811T	MMBTA06			MPSA06	
	800mA							KTC1006
	1A				KTD1898			KTD1863
	2A					KTD2082D		
	3A							
	4A							
	5A							
	10A							
100V	1A				KTC3573			KTC3572
	2A					MJD112		KTD2854
	3A							
	5A					KTC2022D		
	6A							
	7A							
	25A							
120V	800mA				KTC4373			KTC1027
	1A					KTC2025D		
	1.2A							
	10A							
140V	10A							
	12A							
150V	50mA							KTC3206
	10A							
	15A							
160V	600mA			2N5551S			2N5551 2N5551C	
	1A				KTC4380			KTC3228
	1.5A					KTC2983D		
180V	1.5A							
	2A							
230V	1A							
	15A							
250V	50mA						BF422	
300V	50mA						BF420	
	100mA	KTC3207T						KTC3207
	200mA							
	500mA			MMBTA42			MPSA42	
400V	300mA			MMBTA44	PXTA44		MPSA44	
	1.5A						KTC3003	
	5A							
	8A							

Bipolar Junction Transistor

General Purpose Transistor

Type No.	Mark	AEC-Q	Complementary	Mark	Max. Ratings			h _{FE}				V _{CE(sat)} (V)			f _r (MHz)				PKG
					V _{CEO} (V)	I _c (A)	P _c (W)	Min.	Max.	@V _{CE} (V)	@I _c (mA)	Max.	@I _c (A)	@I _b (mA)	Min.	Typ.	@V _{CE} (V)	@I _c (mA)	
KTA1504UL	SG	●	-	-	-50	-0.15	0.25	70	400	-6	-2	-0.3	-0.1	-10	80	-	-10	-1	ULP-3
KTA2014V	S□	○	KTC4075V	L□	-50	-0.15	0.1	70	400	-6	-2	-0.3	-0.1	-10	80	-	-10	-1	VSM
KTC4072V	LZ	●	KTA2012V	SZ	12	0.5	0.1	270	680	2	10	0.25	0.2	10	-	320	2	10	
KTC3770V	R□	●	-	-	12	0.1	0.1	50	250	10	20	-	-	-	5G	7G	10	20	
KTC4075V	L□	○	KTA2014V	S□	50	0.15	0.1	70	700	6	2	0.25	0.1	10	80	-	10	1	
KTA2012E	SZ	○	KTC4072E	LZ	-12	-0.5	0.1	270	680	-2	-10	-0.25	-0.2	-10	-	260	-2	-10	ESM
KTA2014E	S□	○	KTC4075E	L□	-50	-0.15	0.1	70	400	-6	-2	-0.3	-0.1	-10	80	-	-10	-1	
KTC4072E	LZ	○	KTA2012E	SZ	12	0.5	0.1	270	680	2	10	0.25	0.2	10	-	320	2	10	
KTC4075E	L□	○	KTA2014E	S□	50	0.15	0.1	70	700	6	2	0.25	0.1	10	80	-	10	1	
KTA2015	Z□	○	KTC4076	W□	-30	-0.5	0.1	70	240	-1	-100	-0.25	-0.1	-10	-	200	-6	-20	USM
2N3906U	ZA	●	2N3904U	-	-40	-0.2	0.1	100	300	-1	-10	-0.4	-0.05	-5	250	-	-20	-10	
BC857W	3□	○	BC847W	1□	-45	-0.1	0.1	125	800	-5	-2	-0.65	-0.1	-5	-	150	-5	-10	
KTA2014	S□	○	KTC4075	L□	-50	-0.15	0.1	70	400	-6	-2	-0.3	-0.1	-10	80	-	-10	-1	
KTC3770U	R□	●	-	-	12	0.1	0.1	50	250	10	20	-	-	-	5G	7G	10	20	
KTC4076	W□	○	KTA2015	Z□	30	0.5	0.1	70	240	1	100	0.25	0.1	10	-	300	6	20	
BC847W	1□	○	BC857W	3□	45	0.1	0.1	110	800	5	2	0.6	0.1	5	-	300	5	10	
KTC4075	L□	○	KTA2014	S□	50	0.15	0.1	70	700	6	2	0.25	0.1	10	80	-	10	1	
MPS8550S	BJ□	○	MPS8050S	BH□	-25	-1.5	* 0.35	85	300	-1	-100	-0.5	-0.8	-80	100	200	-10	-50	
KTC9012S	BB□	○	KTC9013S	BC□	-30	-0.5	* 0.35	96	246	-1	-50	-0.25	-0.1	-10	150	-	-6	-20	
KTA1505S	AZ□	○	KTC3876S	W□	-30	-0.5	0.15	70	400	-1	-100	-0.25	-0.1	-10	-	200	-6	-20	
KTC8550S	BL□	○	KTC8050S	BK□	-30	-0.8	* 0.35	100	300	-1	-50	-0.5	-0.5	-50	-	120	-5	-10	
KTA1298	I□	○	KTC3265	E□	-30	-0.8	0.2	100	320	-1	-100	-0.4	-0.5	-20	-	120	-5	-10	
KN3906S	ZAA	○	KN3904S	ZCA	-40	-0.2	* 0.35	60	-	-1	-0.1	-0.4	-0.05	-5	-	250	-20	-10	
KN4403S	ZWA	○	KN4401S	ZUA	-40	-0.6	* 0.35	30	-	-1	-0.1	-0.75	-0.5	-50	200	-	-10	-20	
BC860	4□	○	BC850	2□	-45	-0.1	* 0.35	125	475	-5	-2	-0.65	-0.1	-5	-	150	-5	-10	
BC857	3□	○	BC847	1□	-45	-0.1	* 0.35	125	800	-5	-2	-0.65	-0.1	-5	-	150	-5	-10	
BC807	5□	○	BC817	6□	-45	-0.8	* 0.35	100	630	-1	-100	-0.7	-0.5	-50	80	-	-5	-10	
KTC9015S	BE□	○	KTC9014S	BD□	-50	-0.15	* 0.35	100	600	-5	-1	-0.3	-0.1	-10	60	-	-10	-1	
KTA1504S	AS□	○	KTC3875S	AL□	-50	-0.15	0.15	70	400	-6	-2	-0.3	-0.1	-10	80	-	-10	-1	
MMBTA55	AMX	○	MMBTA05	ACX	-60	-0.5	* 0.35	100	-	-1	-100	-0.25	-0.1	-10	50	-	-1	-100	

Note) ※ : Package Mounted on 99.5% Alumina 10x8x0.6mm, □ : h_{FE} Grade

Note) ◇ : Typ, ☆ : T_c=25°C, ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

■ General Purpose Transistor

Type No.	Mark	AEC-Q	Complementary	Mark	Max. Ratings			h _{FE}				V _{CE(sat)} (V)			f _r (MHz)				PKG	
					V _{CEO} (V)	I _c (A)	P _c (W)	Min.	Max.	@V _{CE} (V)	@I _c (mA)	Max.	@I _c (A)	@I _b (mA)	Min.	Typ.	@V _{CE} (V)	@I _c (mA)		
KN2907AS	ZHA	○	KN2222AS	ZGA	-60	-0.6	※ 0.35	100	300	-10	-150	-1.6	-0.5	-50	200	-	-20	-50	SOT -23	
BC856	3□	○	BC846	1□	-65	-0.1	※ 0.35	125	475	-5	-2	-0.65	-0.1	-5	-	150	-5	-10		
MMBTA56	ANX	○	MMBTA06	ADX	-80	-0.5	※ 0.35	100	-	-1	-10	-0.25	-0.1	-10	50	-	-1	-100		
2N5401S	ZE	○	-	-	-150	-0.6	※ 0.35	60	240	-5	-10	-0.5	-0.05	-5	100	-	-10	-10		
MMBTA92	YV	○	MMBTA42	AAX	-300	-0.5	※ 0.35	40	-	-10	-10	-0.5	-0.02	-2	50	-	-20	-10		
KTC3770S	R□	●	-	-	12	0.1	0.15	50	250	10	20	-	-	-	5G	7G	10	20		
MPS8050S	BH□	○	MPS8550S	BJ□	25	1.5	※ 0.35	85	300	1	100	0.5	0.8	80	100	190	10	50		
BC848	1□	○	-	3□	30	0.1	※ 0.35	110	800	5	2	0.6	0.1	5	-	300	5	10		
KTC3876S	W□	●	KTA1505S	AZ□	30	0.5	0.15	70	400	1	100	0.25	0.1	10	-	300	6	20		
KTC9013S	BC□	○	KTC9012S	BB□	30	0.5	※ 0.35	96	246	1	50	0.25	0.1	10	140	-	6	20		
KTC3265	E□	○	KTA1298	I□	30	0.8	0.2	100	320	1	100	0.5	0.5	20	-	120	5	10		
KTC8050S	BK□	○	KTC8550S	BL□	30	0.8	※ 0.35	100	300	1	50	0.5	0.5	20	-	120	5	10		
KN3904S	ZCA	○	KN3906S	ZAA	40	0.2	※ 0.35	40	-	1	0.1	0.3	0.05	5	-	300	20	10		
KN4401S	ZUA	○	KN4403S	ZWA	40	0.6	※ 0.35	20	-	1	0.1	0.75	0.5	50	250	-	10	20		
KN2222AS	ZGA	○	KN2907AS	ZHA	40	0.6	※ 0.35	100	300	10	150	1	0.5	50	300	-	20	20		
BC847	1□	○	BC857	3□	45	0.1	※ 0.35	110	800	5	2	0.6	0.1	5	-	300	5	10		
BC850	2□	○	BC860	4□	45	0.1	※ 0.35	200	800	5	2	0.6	0.1	5	-	300	5	10		
BC817	6□	○	BC807	5□	45	0.8	※ 0.35	100	630	1	100	0.7	0.5	50	100	-	5	10		
KTC3875S	AL□	○	KTA1504S	AS□	50	0.15	0.15	70	700	6	2	0.25	0.1	10	80	-	10	1		
KTC9014S	BD□	○	KTC9015S	BE□	50	0.15	※ 0.35	100	1000	5	1	0.25	0.1	10	60	-	10	1		
MMBTA05	ACX	○	MMBTA55	AMX	60	0.5	※ 0.35	100	-	1	100	0.25	0.1	10	80	-	1	10		
BC846	1□	○	BC856	3□	65	0.1	※ 0.35	110	450	5	2	0.6	0.1	5	-	300	5	10		
MMBTA06	ADX	○	MMBTA56	ANX	80	0.5	※ 0.35	100	-	1	10	0.25	0.1	10	100	-	2	10		
2N5551S	ZF	○	-	-	160	0.6	※ 0.35	80	250	5	10	0.2	0.05	5	100	-	10	10		
MMBTA42	AAX	○	MMBTA92	YV	300	0.5	※ 0.35	40	-	10	10	0.5	0.02	2	50	-	20	10		
MMBTA44	APX	○	-	-	400	0.3	※ 0.35	50	200	10	10	0.5	0.01	1	20	-	10	10		
KTC3207T	LX□	○	KTA1073T	SX□	300	0.1	0.9	50	200	10	20	1	0.01	1	50	-	10	20		TSM

Note) ※ : Package Mounted on Ceramic Substrate (250mm2x0.8t), □ : h_{FE} Grade

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

BJT

Bipolar Junction Transistor

General Purpose Transistor

Type No.	Mark	AEC-Q	Complementary	Mark	Max. Ratings			h _{FE}				V _{CE(sat)} (V)			f _r (MHz)				PKG
					V _{CEO} (V)	I _c (A)	P _c (W)	Min.	Max.	@V _{CE} (V)	@I _c (mA)	Max.	@I _c (A)	@I _B (mA)	Min.	Typ.	@V _{CE} (V)	@I _c (mA)	
KTA1664	R□	○	KTC4376	P□	-30	-0.8	▼1	100	320	-1	-100	-0.7	-0.5	-20	-	120	-5	-10	SOT-89
KTA1663	H□	○	KTC4375	G□	-30	-1.5	▼1	100	320	-2	-500	-2	-1.5	-30	-	120	-2	-500	
KTA1668	J□	○	KTC4378	T□	-60	-1	▼1	120	200	-2	-50	-0.7	-0.5	-50	-	150	-10	-50	
KTA1662	F□	○	KTC4374	E□	-80	-0.4	▼1	70	240	-2	-50	-0.4	-0.2	-20	-	120	-10	-10	
KTB1260	Q□	○	KTD1898	Z□	-80	-1	▼1	120	240	-3	-100	-0.4	-0.5	-50	-	100	-5	-50	
KTA1661	D□	○	KTC4373	C□	-120	-0.8	▼1	80	240	-5	-100	-1	-0.5	-50	-	120	-5	-100	
KTC4376	P□	○	KTA1664	R□	30	0.8	▼1	100	320	1	100	0.5	0.5	20	-	120	5	10	
KTC4375	G□	○	KTA1663	H□	30	1.5	▼1	100	320	2	500	2	1.5	30	-	120	2	500	
KTC4378	T□	○	KTA1668	J□	60	1	▼1	120	320	2	50	0.5	0.5	50	-	150	10	50	
KTC4374	E□	○	KTA1662	F□	80	0.4	▼1	70	240	2	50	0.4	0.2	20	-	100	10	10	
KTD1898	Z□	○	KTB1260	Q□	80	1	▼1	70	400	3	500	0.4	0.5	20	-	100	10	50	
KTC4373	C□	○	KTA1661	D□	120	0.8	▼1	80	240	5	100	1	0.5	50	-	120	5	100	
KTC4380	G2	○	-	-	160	1	▼1	160	320	5	200	1.5	0.5	50	-	100	5	200	
PXTA44	AP	○	-	-	400	0.3	▼1	50	200	10	10	0.5	0.01	1	-	-	-	-	
KTA1242D	-	○	-	-	-20	-5	1	100	320	-2	-500	-0.5	-3	-75	-	170	-2	-500	DPAK
KTA1040D	-	○	KTC2020D	-	-60	-3	1	100	300	-5	-500	-1	-2	-200	-	30	-5	-500	
KTA1041D	-	●	-	-	-80	-3	1	120	300	-5	-500	-1	-2	-200	-	30	-5	-500	
KTA1042D	-	○	KTC2022D	-	-100	-5	-	70	240	-5	-1000	-2	-4	-400	-	30	-5	-1A	
KTA1045D	-	●	KTC2025D	-	-120	-1	1	100	320	-5	-50	-0.4	-0.5	-50	-	110	-10	-50	
KTA1225D	-	●	KTC2983D	-	-160	-1.5	1	70	240	-5	-100	-1.5	-0.5	-50	-	100	-10	-100	
KTC3072D	-	○	-	-	20	5	1	120	700	2	500	0.4	3	60	20	100	6	50	
KTC2020D	-	○	KTA1040D	-	60	3	1	100	300	5	500	1	2	200	-	30	5	500	
KTC2030D	-	○	-	-	60	3	1	150	250	5	500	1	2	200	-	30	5	500	
KTC2825D	-	○	-	-	60	3	1	200	400	2	100	0.5	2	100	-	-	-	-	
KTC2022D	-	○	KTA1042D	-	100	5	-	70	240	5	1000	2	4	400	-	30	5	1A	
KTC2025D	-	●	KTA1045D	-	120	1	1	100	320	5	50	0.4	0.5	50	-	130	10	50	
KTC2983D	-	●	KTA1225D	-	160	1.5	1	70	240	5	100	1.5	0.5	50	-	100	10	100	

Note) ▼ : Package Mounted on Ceramic Substrate (250mm2x0.8t), □ : h_{FE} Grade

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

General Purpose Transistor

Type No.	AEC-Q	Complementary	Max. Ratings			h _{FE}				V _{CE(sat)} (V)			f _r (MHz)				PKG
			V _{CEO} (V)	I _C (A)	P _C (W)	Min.	Max.	@V _{CE} (V)	@I _C (mA)	Max.	@I _C (A)	@I _B (mA)	Min.	Typ.	@V _{CE} (V)	@I _C (mA)	
KTA1243	●	-	-20	-5	0.625	100	320	-2	-500	-0.5	-3	-75	-	170	-2	-500	
BC558	●	BC548	-30	-0.1	0.625	110	800	-5	-2	-0.65	-0.1	-5	-	150	-5	-10	
KTA1270	●	KTC3202	-30	-0.5	0.625	70	240	-1	-100	-0.25	-0.1	-10	-	200	-6	-20	
KTA1271	●	KTC3203	-30	-0.8	0.625	100	320	-1	-100	-0.7	-0.5	-20	-	120	-5	-10	
KTA1282	●	-	-30	-2	0.625	100	320	-2	-500	-2	-1.5	-30	-	120	-2	-500	
KN4403	●	KN4401	-40	-0.6	0.625	30	-	-1	-0.1	-0.4	-0.15	-15	200	-	-10	-20	
BC557	●	BC547	-45	-0.1	0.625	110	800	-5	-2	-0.65	-0.1	-5	-	150	-5	-10	
KTA539	●	KTC815	-45	-0.2	0.625	70	240	-1	-50	-0.5	-0.15	-15	100	-	-10	-10	
BC327	●	BC337	-45	-0.8	0.625	110	630	-1	-100	-0.7	-0.5	-50	-	100	-5	-10	
KTA1266	●	KTC3198	-50	-0.15	0.625	70	400	-6	-2	-0.3	-0.1	-10	80	-	-10	-1	
KTA733B	●	KTC945B	-50	-0.15	0.625	70	400	-6	-2	-0.3	-0.1	-10	-	300	-10	-10	
KTA733	●	KTC945	-50	-0.15	0.625	90	600	-6	-2	-0.3	-0.1	-10	-	300	-10	-10	
KTA200	●	KTC200	-50	-0.5	0.625	70	240	-2	-50	-0.25	-0.1	-10	-	200	-6	-20	
KN2907A	●	KN2222A	-60	-0.6	0.625	75	-	-10	-0.1	-0.4	-0.15	-15	200	-	-20	-50	
KTA708	●	KTC1008	-60	-1	0.625	60	200	-2	-50	-0.7	-0.5	-50	150	-	-10	-50	
MPS751	●	MPS651	-60	-1	0.625	60	200	-2	-50	-0.7	-0.5	-50	-	150	-10	-50	
BC556	●	BC546	-65	-0.1	0.625	110	450	-5	-2	-0.65	-0.1	-5	-	150	-5	-10	
2N5401	●	-	-150	-0.6	0.625	60	240	-5	-10	-0.5	-0.05	-5	100	-	-10	-10	
BF423	●	BF422	-250	-0.05	0.625	50	-	-20	-25	-0.6	-0.03	-5	60	-	-10	-10	
BF421	●	BF420	-300	-0.05	0.625	50	300	-20	-25	-0.6	-0.03	-5	60	-	-10	-10	
MPSA94	●	MPSA44	-400	-0.3	0.625	50	300	-10	-10	-0.5	-0.01	-1	-	-	-	-	
KTC3266	●	KTA1296	20	2	0.625	120	400	2	100	0.5	2	100	-	120	2	500	
BC548	●	BC558	30	0.1	0.625	110	800	5	2	0.6	0.1	5	-	150	5	10	
BC549	●	BC559	30	0.1	0.625	110	800	5	2	0.6	0.1	5	-	300	5	10	
KTC3202	●	KTA1270	30	0.5	0.625	70	400	1	100	0.25	0.1	10	-	300	6	20	
KTC3203	●	KTA1271	30	0.8	0.625	100	320	1	100	0.5	0.5	20	-	120	5	10	

BJT

TO-92

Note) ● : Preparing for qualification of AEC-Q

Bipolar Junction Transistor

General Purpose Transistor

Type No.	AEC-Q	Complementary	Max. Ratings			h _{FE}				V _{CE(sat)} (V)			f _r (MHz)				PKG
			V _{CEO} (V)	I _C (A)	P _C (W)	Min.	Max.	@V _{CE} (V)	@I _C (mA)	Max.	@I _C (A)	@I _B (mA)	Min.	Typ.	@V _{CE} (V)	@I _C (mA)	
KN3904	●	KN3906	40	0.2	0.625	40	-	1	0.1	0.2	0.01	1	-	300	20	10	TO-92
KN2222A	●	KN2907A	40	0.6	0.625	35	-	10	0.1	0.3	0.15	15	300	-	20	20	
KN4401	●	KN4403	40	0.6	0.625	20	-	1	0.1	0.4	0.15	15	250	-	10	20	
BC547	●	BC557	45	0.1	0.625	110	800	5	2	0.6	0.1	5	-	150	5	10	
KTC815	●	KTA539	45	0.2	0.625	70	240	1	50	0.4	0.15	15	100	200	10	10	
KTC200	●	KTA200	45	0.5	0.625	70	240	2	50	0.25	0.1	10	-	300	6	20	
BC337	●	BC327	45	0.8	0.625	100	630	1	100	0.7	0.5	50	-	100	5	10	
KTC3198	●	KTA1266	50	0.15	0.625	70	700	6	2	0.25	0.1	10	80	-	10	1	
KTC945B	●	KTA733B	50	0.15	0.625	70	700	-6	-2	0.25	0.1	10	-	300	10	10	
KTC1815	●	KTA1015	50	0.15	0.625	70	700	6	2	0.25	0.1	10	80	-	10	1	
KTC945	●	KTA733	50	0.15	0.625	90	600	6	2	0.25	0.1	10	80	300	10	10	
KTC1008	●	KTA708	60	1	0.625	100	320	2	50	0.5	0.5	50	-	150	10	50	
MPS651	●	MPS751	60	1	0.625	100	320	2	50	0.5	0.5	50	-	150	10	50	
BC546	●	BC556	65	0.1	0.625	110	450	5	2	0.6	0.1	5	-	150	5	10	
MPSA06	●	MPSA56	80	0.5	0.625	100	-	1	100	0.25	0.1	10	100	-	2	10	
2N5551	●	-	160	0.6	0.625	80	250	5	10	0.2	0.05	5	100	-	10	10	
BF422	●	BF423	250	0.05	0.625	50	-	20	25	0.6	0.03	5	60	-	10	10	
BF420	●	BF421	300	0.05	0.625	50	-	20	25	0.6	0.03	5	60	-	10	10	
MPSA42	●	MPSA92	300	0.5	0.625	40	-	10	10	0.5	0.02	2	50	-	20	10	
MPSA44	●	MPSA94	400	0.3	0.625	50	200	10	10	0.5	0.01	1	-	-	-	-	
KTA1273	●	KTC3205	-30	-2	1	100	320	-2	-500	-2	-1.5	-30	-	120	-2	-500	TO-92L
KTB764	●	KTD863	-50	-1	1	60	320	-2	-50	-0.7	-0.5	-50	-	150	-10	-50	
KTA1274	●	KTC3227	-80	-0.4	1	70	240	-2	-50	-0.4	-0.2	-20	-	100	-10	-10	
KTB1241	●	KTD1863	-80	-1	1	70	400	-3	-100	-0.4	-0.5	-50	-	100	-5	-50	
KTA1572	●	KTC3572	-100	-1	1	150	450	-5	-500	-0.18	-0.5	-50	-	100	-10	-50	
KTA1023	●	KTC1027	-120	-0.8	1	80	240	-5	-100	-1	-0.5	-50	-	120	-5	-100	
KTA1024	●	KTC3206	-150	-0.05	1	70	240	-5	-10	-0.8	-0.01	-1	-	120	-30	-10	
KTA1275	●	KTC3228	-160	-1	1	60	320	-5	-200	-1.5	-0.5	-50	15	50	-5	-200	
KTA1070	●		-200	-0.1	1	70	240	-5	-10	-0.6	-0.02	-2	-	150	-30	-10	
KTA1277	●	-	-400	-0.5	1	60	200	-5	-100	-1	-0.1	-10	-	-	-	-	
KTC3226	●	-	10	2	1	140	600	1	500	0.5	2	50	-	150	1	500	
KTC3205	●	KTA1273	30	2	1	100	320	2	500	2	1.5	30	-	120	2	500	
KTD863	●	KTB764	60	1	1	60	320	2	50	0.5	0.5	50	-	150	10	50	
KTC3227	●	KTA1274	80	0.4	1	70	240	2	50	0.4	0.2	20	-	100	10	10	
KTD1863	●	KTB1241	80	1	1	70	400	3	500	0.4	0.5	20	-	100	10	50	
KTC3572	●	KTA1572	100	1	1	150	500	10	250	0.12	0.5	50	-	100	10	50	
KTC1027	●	KTA1023	120	0.8	1	80	240	5	100	1	0.5	50	-	120	5	100	
KTC3206	●	KTA1024	150	0.05	1	70	240	5	10	0.5	0.01	1	-	120	30	10	
KTC3228	●	KTA1275	160	1	1	60	320	5	200	1.5	0.5	50	20	100	5	200	
KTC3207	●	-	300	0.1	1	30	150	10	20	1	0.01	1	50	-	10	20	
KTC1006	●	-	80	0.8	1	100	-	2	150	0.7	0.5	20	-	150	10	100	

Note) ● : Preparing for qualification of AEC-Q

■ General Purpose Transistor

Type No.	AEC-Q	Complementary	Max. Ratings				h _{FE}				V _{CE(sat)} (V)			f _r (MHz)				PKG
			V _{CEO} (V)	I _C (A)	P _C [★] (W)	P _C [☆] (W)	Min.	Max.	@V _{CE} (V)	@I _C (mA)	Max.	@I _C (A)	@I _B (mA)	Min.	Typ.	@V _{CE} (V)	@I _C (mA)	
KTB772	○	KTD882	-30	-3	1.5	10	100	400	-2	-1A	-0.5	-2	-200	-	80	-5	-100	TO-126
KTB1151	●	KTD1691	-60	-5	1.5	20	160	400	-1	-2A	-0.3	-2	-200	-	-	-	-	
KTB631K	●	KTD600K	-120	-1	1.5	8	100	320	-5	-50	-0.4	-0.5	-50	-	110	-10	-50	
KTA1704	●	KTC2803	-120	-1.2	1.5	20	100	320	-5	-50	-0.4	-0.5	-50	-	110	-10	-50	
KTA1360	●	KTC3423	-150	-0.05	1.5	-	70	240	-5	-10	-0.8	-0.01	-1	-	120	-30	-10	
KTA1700	●	KTC2800	-160	-1.5	1.5	10	70	240	-5	-100	-1.5	-0.5	-50	-	100	-10	-100	
KTA1381	●	KTC3503	-300	-0.1	1.5	7	60	200	-10	-10	-0.6	-0.02	-2	-	150	-30	-10	
KTD882	○	KTB772	30	3	1.5	10	100	400	2	1A	0.5	2	200	-	90	5	100	
KTD1691	○	KTB1151	60	5	1.5	20	160	400	1	2A	0.3	2	200	-	-	-	-	
KTD600K	●	KTB631K	120	1	1.5	8	100	320	5	50	0.4	0.5	50	-	130	10	50	
KTC2803	●	KTA1704	120	1.2	1.5	20	100	320	5	50	0.4	0.5	50	-	110	10	50	
KTC3423	●	KTA1360	150	0.05	1.5	5	70	240	5	10	0.5	0.01	1	-	120	30	10	
KTC2800	●	KTA1700	160	1.5	1.5	10	70	240	5	100	1.5	0.5	50	-	100	10	100	
KTC3503	●	KTA1381	300	0.1	1.5	7	60	200	10	10	0.6	0.02	2	-	150	30	10	
KTC4217	●	-	300	0.2	1.5	10	60	200	10	10	0.6	0.02	2	-	70	10	10	
KTA1658	○	KTC4369	-30	-3	-	15	70	240	-2	-500	-0.8	-2	-200	-	100	-2	-500	TO-220IS
KTA1046	○	KTC2026	-60	-3	2	20	100	300	-5	-500	-1	-2	-200	-	30	-5	-500	
KTA1725	○	KTC4511	-80	-6	-	30	55	160	-4	-2A	-0.5	-2	-200	-	20	-12	-500	
TIP32CF	○		-100	-3	2	25	10	50	-4	-3A	-1.2	-3	-375	3	-	-10	-500	
KTB1367	○	KTD2059	-100	-5	-	30	40	240	-5	-1A	-2	-4	-400	-	5	-5	-1A	
KTA1049	○	KTC2028	-100	-5	-	30	70	240	-5	-1A	-2	-4	-400	-	30	-5	-1A	
TIP42CF	○	TIP41CF	-100	-6	2	25	15	75	-4	-3A	-1.5	-6	-600	3	-	-10	-100	
KTA1659	●	KTC4370	-160	-1.5	-	20	70	240	-5	-100	-1.5	-0.5	-50	-	100	-10	-100	
KTA1659A	●	KTC4370A	-180	-1.5	-	20	70	240	-5	-100	-1.5	-0.5	-50	-	100	-10	-100	
KTB1369	●	KTD2061	-180	-2	-	20	70	240	-10	-400	-1	-0.5	-50	-	100	-10	-400	
KTA1837	●	KTC4793	-230	-1	2	20	100	320	-5	-100	-1.5	-0.5	-50	-	70	-10	-100	

Note) ★ : Ta=25°C, ☆ : Tc=25°C

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

BJT

Bipolar Junction Transistor

General Purpose Transistor

Type No.	AEC-Q	Complementary	Max. Ratings				h _{FE}				V _{CE(sat)} (V)			f _r (MHz)				PKG
			V _{CEO} (V)	I _C (A)	P _C * (W)	P _C * (W)	Min.	Max.	@V _{CE} (V)	@I _C (mA)	Max.	@I _C (A)	@I _B (mA)	Min.	Typ.	@V _{CE} (V)	@I _C (mA)	
KTC4369	●	KTA1658	30	3	-	15	70	240	2	500	0.8	2	200	-	100	2	500	TO-220IS
KTC2026	○	KTA1046	60	3	2	20	100	300	5	500	1	2	200	-	30	5	500	
KTC2036	○	-	60	3	2	20	150	250	5	500	1	2	200	-	30	5	500	
KTD2058	○	KTB1366	60	3	2	25	60	200	5	500	1	2	200	-	3	5	500	
KTC1003	○	-	60	4	-	30	30	150	5	1A	1	4	400	-	8	5	500	
KTC2027	○	-	80	4	-	25	70	240	5	500	1.5	3	300	-	30	5	500	
KTD2060	○	KTB1368	80	4	-	25	40	240	5	500	1.5	3	300	-	8	5	500	
KTC2028	●	KTA1049	100	5	-	30	120	240	5	1A	2	4	400	-	30	5	1A	
KTD2059	○	KTB1367	100	5	-	30	40	240	5	1A	2	4	400	-	12	5	1A	
TIP41CF	○	TIP42CF	100	6	2	25	15	75	4	3A	1.5	6	600	3	-	10	500	
KTC3229	●	-	300	0.1	2	-	30	200	10	20	1	0.01	1	75	95	20	20	

Note) ★ : Ta=25°C, ☆ : Tc=25°C

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

Audio Power Transistor

Type No.	AEC-Q	Complementary	Max. Ratings				h _{FE}				V _{CE(sat)} (V)			f _r (MHz)				PKG
			V _{CEO} (V)	I _C (A)	P _C * (W)	P _C * (W)	Min.	Max.	@V _{CE} (V)	@I _C (mA)	Max.	@I _C (A)	@I _B (mA)	Min.	Typ.	@V _{CE} (V)	@I _C (mA)	
KTA1700	●	KTC2800	-160	-1.5	1.5	10	70	240	-5	-100	-1.5	-0.5	-50	-	100	-10	-100	TO-126
KTC3964	○	-	40	2	1.5	-	500	-	1	400	0.5	0.3	1	-	220	2	100	
KTC3114	●	-	50	0.15	1.5	-	600	3600	6	2	0.25	0.1	10	100	250	10	10	
KTC2800	●	KTA1700	160	1.5	1.5	10	70	240	5	100	1.5	0.5	50	-	100	10	100	TO-220IS
KTC4370	●	KTA1659	160	1.5	-	20	70	240	5	100	1.5	0.5	50	-	100	10	100	
KTC4370A	●	KTA1659A	180	1.5	-	20	70	240	5	100	1.5	0.5	50	-	100	10	100	
KTD2061	●	KTB1369	180	2	-	20	70	240	10	400	1	0.5	50	-	100	10	400	TO-3P(H)IS
KTC4793	●	KTA1837	230	1	2	20	100	320	5	100	1.5	0.5	50	-	100	10	100	
KTB778	●	KTD998	-120	-10	-	80	55	160	-5	-1000	-2.5	-5	-500	-	10	-5	-1000	
KTD998	●	KTB778	120	10	-	80	55	160	5	1000	2.5	5	500	-	12	5	1000	TO-3P(N)-E
TIP36C	○	TIP35C	-100	-25	-	125	55	160	-5	-1.5	-1.8	15	-1500	3	-	-5	-1000	
KTB688	●	KTD718	-120	-10	-	80	55	160	-5	-1000	-2.5	-5	-500	-	10	-5	-1000	
KTA1695A	●	KTC4468A	-140	-10	-	100	55	-	-4	-3000	-0.5	-5	-500	-	20	-12	-500	
KTB817	●	KTD1047	-140	-12	-	100	60	200	-5	-1000	-2.5	-5	-500	-	15	-5	-1000	
KTD1630	●	KTB2630	150	10	-	100	15K	30000	4	7000	2.5	7	7	-	55	12	2000	
KTD1640	●	KTB2640	150	15	-	130	15K	30000	4	10000	2.5	10	10	-	70	12	2000	
KTB2630	●	KTD1630	-150	-10	-	100	15K	30000	-4	7000	-2.5	-7	-7	-	50	-12	2000	
KTB2640	●	KTD1640	-150	-15	-	130	15K	30000	-4	10000	-2.5	-10	-10	-	45	-12	2000	
KTA1943N	●	KTC5200N	-230	-15	-	150	55	160	-5	-1000	-3	-8	-800	-	30	-5	-1000	
KTA1962A	●	KTC5242A	-230	-15	-	130	55	160	-5	-1000	-3	-8	-800	-	30	-5	-1000	
TIP35C	○	TIP36C	100	25	-	125	55	160	5	1500	1.8	15	1500	3	-	5	1000	
KTD718	●	KTB688	120	10	-	80	55	160	5	1000	2	6	600	-	12	5	1000	
KTC4468A	●	KTA1695A	140	10	-	100	55	-	4	3000	0.5	5	500	-	20	12	500	
KTD1047	●	KTB817	140	12	-	100	60	200	5	1000	2.5	5	500	-	15	5	1000	
KTC5200N	●	KTA1943N	230	15	-	150	55	160	5	1000	3	8	800	-	30	5	1000	
KTC5242A	●	KTA1962A	230	15	-	130	55	160	5	1000	3	8	800	-	30	5	1000	
KTD1630G	●	KTB2630G	150	10	-	100	15K	30000	4	7000	2.5	7	7	-	55	12	2000	
KTD1640G	●	KTB2640G	150	15	-	130	15K	30000	4	10000	2.5	10	10	-	70	12	2000	
KTA1943	●	KTC5200	-230	-15	-	150	55	160	-5	-1000	-3	-8	-800	-	30	-5	-1000	TO-3P(L)
KTC5200	●	KTA1943	230	15	-	150	55	160	5	1000	3	8	800	-	30	5	1000	
KTA1943A	●	KTC5200A	-230	-15	-	150	55	160	-5	-1000	-3	-8	-800	-	30	-5	-1	
KTC5200A	●	KTA1943A	230	15	-	150	55	160	5	1000	3	8	800	-	30	5	1	

Note) ★ : Ta=25°C, ☆ : Tc=25°C

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

■ Complex General Purpose Transistor

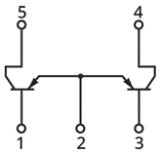
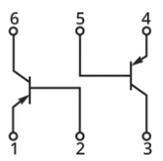
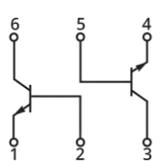
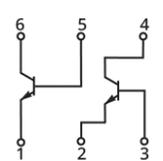
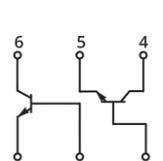
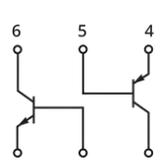
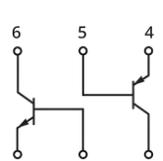
BJT

TypeNo.	Mark	AEC-Q	Internal Circuit (Top View)	Max. Ratings			h _{FE}				V _{CE(sat)} (V)			f _T (MHz)				PKG
				V _{CEO} (V)	I _C (A)	P _C (W)	Min.	Max.	@V _{CE} (V)	@I _C (mA)	Max.	@I _C (A)	@I _B (mA)	Min.	Typ.	@V _{CE} (V)	@I _C (mA)	
KTC601E	L□	○		50	150	0.2	120	400	6	2	0.25	0.1	10	80	-	10	1	TESV
KTA701E	S□	○		-50	-150	0.2	120	400	-6	-2	-0.3	-0.1	-10	80	-	-10	-1	TES6
KTC802E	LZ	○		12	500	0.2	270	680	2	10	0.25	0.2	10	-	320	2	10	
KTC801E	L□	○		50	150	0.2	120	400	6	2	0.3	0.1	10	80	-	10	1	
KTC811E	V□	○		50	150	0.2	120	400	6	2	0.3	0.1	10	80	-	10	1	
KTC812E	W□	○		50	150	0.2	120	400	6	2	0.3	0.1	10	80	-	10	1	
KTX101E	B□	○		±50	±150	0.2	120	400	±6	±2	+0.25 -0.3	±0.1	±10	80	-	±10	±1	

Note) □ : h_{FE} Grade
 Note) ○ : AEC-Q Qualified

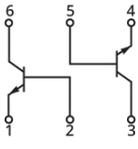
Bipolar Junction Transistor

■ Complex General Purpose Transistor

TypeNo.	Mark	AEC-Q	Internal Circuit (Top View)	Max. Ratings			h _{FE}				V _{CE(sat)} (V)			f _r (MHz)				PKG	
				V _{CEO} (V)	I _C (mA)	P _C (W)	Min.	Max.	@V _{CE} (V)	@I _C (mA)	Max.	@I _C (A)	@I _B (mA)	Min.	Typ.	@V _{CE} (V)	@I _C (mA)		
KTA501U	S□	●		-50	-150	0.2	120	400	-6	-2	-0.3	-0.1	-10	80	-	-10	-1	USV	
KTA701U	S□	○		-50	-150	0.2	120	400	-6	-2	-0.3	-0.1	-10	80	-	-10	-1	US6	
KTC801U	L□	○		50	150	0.2	120	400	6	2	0.25	0.1	10	80	-	10	1		
KTC811U	V□	○		50	150	0.2	120	400	6	2	0.3	0.1	10	80	-	10	1		
KTC812U	W□	○		50	150	0.2	120	400	6	2	0.3	0.1	10	80	-	10	1		
KTX101U	B□	○		±50	±150	0.2	120	400	±6	±2	+0.25 -0.3	±0.1	±10	80	-	±10	±1		
KTX111T	B□	○		±30	±500	▲0.9	70	240	±1	±100	±0.25	±0.1	±10	-	300	±6	±20		TS6

Note) ▲ : Package Mounted on Ceramic Substrate (250mm2x0.8t), □ : h_{FE} Grade
 Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

■ Audio Muting Transistor

TypeNo.	Mark	AEC-Q	Internal Circuit (Top view)	Max. Ratings			h _{FE}				V _{CE(sat)} (V)			f _r (MHz)			R _{ON} (Ω)				PKG	
				V _{CEO} (V)	I _c (A)	P _c (W)	Min.	Max.	@V _{CE} (V)	@I _c (mA)	Max.	@I _c (A)	@I _B (mA)	Typ.	@V _{CE} (V)	@I _c (mA)	Typ.	@f (KHz)	@I _B (mA)	@V _{IN} (V)		
KTC2875	M□	●	-	20	0.3	0.15	200	1200	2	4	0.3	0.03	3	30	6	4	-	-	-	-	SOT -23	
KTC2875AS	MK	●	-	20	0.3	0.2	820	2700	2	4	0.1	0.03	3	-	-	-	0.86	1	5	0.1		
KTD1304	MAX	●	-	20	0.3	0.2	200	800	2	4	0.25	0.1	10	60	10	1	0.6	1	1	0.3		
KTC812T	M□	●		20	0.3	▲0.9	350	1200	2	4	0.3	0.03	3	30	6	4	-	-	-	-		TS6
KTC2874	-	●	-	20	0.3	0.625	200	1200	2	4	0.1	0.03	3	30	6	4	-	-	-	-		TO- 92
KTD1302	-	●	-	20	0.3	0.625	200	800	2	4	0.25	0.1	10	60	10	1	0.6	1	1	0.3		

Note) ▲ : Package Mounted on Ceramic Board (600mm²x0.8mm), □ : h_{FE} Grade

Note) ● : Preparing for qualification of AEC-Q

BJT

Bipolar Junction Transistor

■ High h_{FE} Transistor

TypeNo.	Mark	AEC-Q	Max. Ratings			h_{FE}					$V_{CE(sat)}(V)$			$f_T(MHz)$				PKG
			$V_{CEO}(V)$	$I_C(A)$	$P_C(W)$	Min.	Typ.	Max.	@ $V_{CE}(V)$	@ $I_C(mA)$	Max.	@ $I_C(A)$	@ $I_B(mA)$	Min.	Typ.	@ $V_{CE}(V)$	@ $I_C(mA)$	
KTC3295	T□	●	50	0.15	0.15	600	-	3600	6	2	0.25	0.1	10	100	250	10	10	SOT-23
KTD1003	L□	●	50	1	▼1	800	1500	3200	5	300	0.3	0.5	5	150	250	10	500	SOT-89
KTC3112	-	●	50	0.15	0.625	600	-	3600	6	2	0.25	0.1	10	100	250	10	10	TO-92
KTD1028	-	●	50	1	1	800	1500	3200	5	300	0.3	0.5	5	150	250	10	500	TO-92L
KTD2092	-	●	80	3	☆25	500	-	1500	1	500	0.35	1	10	-	140	5	1A	TO-220IS
KTD2066	-	●	80	5	☆30	500	-	1500	1	1A	0.35	3	30	-	130	5	1A	
KTD1937	-	○	80	10	☆40	500	-	1500	1	1A	0.35	5	50	-	70	5	1A	

Note) ▼ : Mounted on Ceramic Substrate(250mm²×0.8t), □ : h_{FE} Grade, ☆ : $T_c=25^{\circ}C$
 Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

■ Darlington Transistor

BJT

Type No.	Mark	AEC-Q	Complementary	Mark	Max. Ratings			h _{FE}			V _{CE(sat)} (V)			f _r (MHz)			PKG
					V _{CEO} (V)	I _c (A)	P _c (W)	Min.	@V _{CE} (V)	@I _c (mA)	Max.	@I _c (A)	@I _b (mA)	Min.	@V _{CE} (V)	@I _c (mA)	
MMBTA63	AGX	●	-	-	-30	-0.5	0.35	5,000	-5	-10	-1.5	-0.1	-0.1	125	-5	-10	SOT-23
MMBTA517	UA	●	-	-	△30	0.4	0.35	30,000	2	100	1	0.1	1	220	2	100	
MMBTA13	AIX	●	-	-	△30	0.5	0.35	5,000	5	10	1.5	0.1	0.1	125	5	10	
MJD112	-	●	-	-	100	2	☆20	1,000	3	2A	2	2	8	25	10	750	DPAK
BC517	-	●	-	-	30	0.5	0.625	30,000	2	100	1	0.1	1	◇220	2	10	TO-92
MPSA13	-	●	-	-	30	0.5	0.625	10,000	5	100	1.5	0.1	0.1	125	5	10	
KTD2854	-	●	-	-	100	2	1	2,000	2	1A	1.5	1	1	◇100	2	500	TO-92L
KTD1411	-	●	-	-	60	4	☆15	3,000	2	1A	1.5	3	30	-	-	-	TO-126
KTB1424	-	●	-	-	-60	-3	☆25	3,000	-2	-1A	-1.5	-3	-30	-	-	-	TO-220IS
KTB1423	-	●	-	-	-120	-5	☆30	1,000	-3	-500	-2	-3	-12	-	-	-	
KTD1414	-	●	-	-	80	4	☆25	2,000	2	1A	1.5	3	6	-	-	-	
KTD1413	-	●	-	-	100	5	☆25	2,000	2	3A	1.5	3	3	-	-	-	
KTD1415	-	●	-	-	100	7	☆30	2,000	3	3A	1.5	3	6	-	-	-	

Note) △ : V_{CE(s)}, ◇ : Typ, ☆ : T_c=25°C

Note) ● : Preparing for qualification of AEC-Q

Bipolar Junction Transistor

■ Strobe Flash Transistor

Type No.	Mark	AEC-Q	Complementary	Mark	Max. Ratings			h _{FE}				V _{CE(sat)} (V)			f _r (MHz)			PKG
					V _{CEO} (V)	I _C (A)	P _C (W)	Min.	Max.	@V _{CE} (V)	@I _C (mA)	Max.	@I _C (A)	@I _B (mA)	Typ.	@V _{CE} (V)	@I _C (mA)	
KTA1001	K□	○	-	-	-20	-3	▼1	100	320	-2	-500	-0.5	-3	-75	170	-2	-500	SOT-89
KTA1241	-	●	-	-	-20	-5	▼1	100	320	-2	-500	-0.5	-3	-75	170	-2	-500	TO-92L

Note) @ : Mounted on Ceramic Substrate (250mm²x0.8t), □ : h_{FE} Grade

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

■ Switching Transistor

Type No.	Mark	AEC-Q	Complementary	Mark	Max. Ratings			h _{FE}			V _{CE(sat)} (V)			f _r (MHz)	t _{on} (ns)	t _{off} (ns)	t _d (ns)	t _r (ns)	t _{eg} (ns)	t _f (ns)	PKG
					V _{CEO} (V)	I _C (A)	P _C (W)	Max	@V _{CE} (V)	@I _C (mA)	Max	@I _C (A)	@I _B (mA)	MIN.	Max	Max	Max	Max	Max	Max	
KTN2907AU	ZH	●	KTN2222AU	ZG	-60	-0.6	0.1	300	-10	-150	-1.6	-0.5	-50	200	45	100	10	40	80	30	USM
KTN2222AU	ZG	●	KTN2907AU	ZH	40	0.6	0.1	300	10	150	1.0	0.5	50	250	-	-	10	25	225	60	
2N3906S	ZA	●	2N3904S	ZC	-40	-0.2	※0.35	300	-1	-10	-0.4	-0.05	-5	250	-	-	35	35	225	75	SOT-23
KTN2907AS	ZH	●	KTN2222AS	ZG	-60	-0.6	※0.35	300	-10	-150	-1.6	-0.5	-50	200	45	100	10	40	80	30	
2N3904S	ZC	●	2N3906S	ZA	40	0.2	※0.35	300	1	10	0.3	0.05	5	300	-	-	35	35	200	50	
KTN2222AS	ZG	●	KTN2907AS	ZH	40	0.6	※0.35	300	10	150	1.0	0.5	50	300	-	-	10	25	225	60	SOT-89
KTA1666	W□	○	KTC4379	U□	-50	-2	▼1	240	-2	-500	-0.5	-1	-50	◇120	◇100	-	-	-	◇1,000	◇100	
KTB1124	X□	○	KTD1624	Y□	-50	-3	▼1	400	-2	-100	-0.7	-2	-100	◇150	◇70	-	-	-	◇450	◇35	
KTC4379	U□	○	KTA1666	W□	50	2	▼1	240	2	500	0.5	1	50	◇120	◇100	-	-	-	◇1,000	◇100	
KTD1624	Y□	○	KTB1124	X□	50	3	▼1	400	2	100	0.5	2	100	◇150	◇70	-	-	-	◇650	◇35	DPAK
KTA1718D	-	○	KTC2815D	-	-50	-2	☆10	240	-2	-500	-0.5	-1	-50	◇100	◇100	-	-	-	◇1,000	◇100	
KTA1385D	-	○	KTC5103D	-	-60	-5	☆15	400	-1	-2A	-0.3	-2	-200	-	1,000	-	-	-	2,500	1,000	
KTA1862D	-	●	-	-	-400	-2	☆10	180	-5	-100	-0.5	0.5	-100	18	◇200	-	-	-	◇1,800	◇400	
KTA1807D	-	●	-	-	-600	-1	☆10	120	-5	-100	-1.0	-0.3	-60	28	500	-	-	-	5,000	500	
KTC2815D	-	○	KTA1718D	-	50	2	☆10	240	2	500	0.5	1	50	100	◇100	-	-	-	◇1,000	◇100	
KTC5103D	-	○	KTA1385D	-	60	5	☆15	400	1	2A	0.3	2	200	-	1,000	-	-	-	2,500	1,000	

Note) ◇ : Typ, ☆ : T_c=25°C, ※ : Package Mounted on 99.5% Alumina 10X8X0.6mm, ▼ : Mounted on Ceramic Substrate(250mm²x0.8t), □ : h_{FE} Grade

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

■ Switching Transistor

Type No.	Mark	AEC-Q	Complementary	Max. Ratings			h _{FE}				V _{CE(sat)} (V)			f _r (MHz)	t _{on} (μs)	t _{off} (μs)	t _r (μs)	t _{stg} (μs)	t _f (μs)	PKG
				V _{CEO} (V)	I _c (A)	P _c (W)	Min.	Max.	@V _{CE} (V)	@I _c (mA)	Max.	@I _c (A)	@I _B (mA)	Min.	Max.	Max.	Max.	Max.	Max.	
2N3906	-	●	2N3904	-40	-0.2	0.625	100	300	-1	-10	-0.4	-0.05	-5	250	0.07	0.3	0.035	0.225	0.075	TO-92
KTN2907A	-	●	KTN2222A	-60	-0.6	0.625	100	300	-10	-150	-1.6	-0.5	-50	200	0.045	0.1	0.04	0.08	0.03	
2N3904	-	●	2N3906	40	0.2	0.625	100	300	1	10	0.3	0.05	5	300	0.07	0.25	0.035	0.2	0.05	
KTN2222A	-	●	KTN2907A	40	0.6	0.625	100	300	10	150	1	0.5	50	300	0.035	0.3	0.025	0.225	0.06	
KTC3003	-	●	-	400	1.5	1.1	9	38	2	500	3	1.5	500	4	1.1	4.7	-	4	0.7	
KTA1281	-	●	KTC3209	-50	-2	1	70	240	-2	-500	-0.5	-1	-50	◇ 100	◇ 0.1	◇ 1.1	-	◇ 1.0	◇ 0.1	TO-92L
KTB985	-	●	KTD1347	-50	-3	1	100	400	-2	-100	-0.7	-2	-100	◇ 150	◇ 0.07	◇ 0.5	-	◇ 0.45	◇ 0.035	
KTC3209	-	●	KTA1281	-50	2	1	70	240	2	500	0.5	1	50	◇ 100	◇ 0.1	◇ 1.1	-	◇ 1.0	◇ 0.1	
KTD1347	-	●	KTB985	50	3	1	100	400	2	100	0.5	2	100	◇ 150	◇ 0.07	◇ 0.7	-	◇ 0.65	◇ 0.035	
KTA1715	-	○	KTC2814	-50	-2	☆ 10	70	240	-2	-500	-0.5	-1	-50	◇ 100	◇ 0.1	◇ 1.1	-	◇ 1.0	◇ 0.1	TO-126
KTA1807A	-	●	-	-600	-1	1.5	60	120	-5	-100	-1	-0.3	-60	◇ 28	◇ 0.1	◇ 3.58	-	◇ 3.5	◇ 0.08	
KTC2814	-	○	KTA1715	50	2	☆ 10	70	240	2	500	0.5	1	50	◇ 100	◇ 0.1	◇ 1.1	-	◇ 1.0	◇ 0.1	
MJE13003	-	●	-	400	1.5	☆ 20	9	38	2	500	3	1.5	500	4	1.1	4.7	-	4	0.7	
MJE13005DF	-	●	-	400	5	☆ 30	18	35	5	1A	1	4	1A	4	0.15	5.8	-	5	0.8	TO-220IS
MJE13007F	-	●	-	400	8	☆ 40	15	50	5	2A	2	5	1A	4	1.6	3.7	-	3	0.7	

Note) ◇ : Typ, ☆ : T_c=25°C

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

BJT

Bipolar Junction Transistor

Low $V_{CE(sat)}$ Transistor

Type No.	Mark	AEC-Q	Complementary	Mark	Max. Ratings			h_{FE}				$V_{CE(sat)}(V)$			$f_r(MHz)$			PKG
					V_{CEO} (V)	I_C (A)	P_C (W)	Min.	Max.	@ V_{CE} (V)	@ I_C (mA)	Max.	@ I_C (A)	@ I_B (mA)	Typ.	@ V_{CE} (V)	@ I_C (mA)	
KTA1532U	2A	○	-	-	-12	-1.5	※0.2	270	680	-2	-200	-0.2	-0.5	-25	400	-2	-200	USM
KTA1531T	SA□	○	KTC3531T	HA□	-20	-1	▲0.9	120	400	-2	-50	-0.3	-0.5	-50	180	-10	-50	TSM
KTA1532T	SB	○	KTC3532T	HB	-20	-1.5	▲0.9	200	560	-2	-100	-0.18	-0.75	-15	210	-2	-300	
KTA1535T	SD	●	KTC3535T	HD	-20	-3	▲0.9	200	560	-2	-500	-0.165	-1.5	-30	160	-2	-500	
KTA1536T	SE	○	-	HE	-20	-5	▲0.9	200	560	-2	-500	-0.30	-3	-60	140	-2	-500	
KTA1544T	SN	○	KTC3544T	HN	-30	-2	▲0.9	200	560	-2	-100	-0.6	-1.5	-75	150	-10	-50	
KTA1542T	SH	○	KTC3542T	HH	-30	-3	▲0.9	200	560	-2	-500	-0.23	-1.5	-30	380	-10	-500	
KTA1551T	SK	○	KTC3551T	HK	-50	-1	▲0.9	200	560	-2	-100	-0.43	-0.5	-10	420	-10	-300	
KTA1552T	SL	○	KTC3552T	HL	-50	-3	▲0.9	200	560	-2	-100	-0.2	-1	-50	360	-10	-500	
KTC3531T	HA□	○	KTA1531T	SA□	20	1	▲0.9	120	400	2	50	0.3	0.5	50	180	10	50	
KTC3532T	HB	○	KTA1532T	SB	20	1.5	▲0.9	200	560	2	100	0.2	0.75	15	210	2	300	
KTC3535T	HD	○	KTA1535T	SD	20	3	▲0.9	200	560	2	500	0.15	1.5	30	180	2	500	
KTC3544T	HN	○	KTA1544T	SN	30	2	▲0.9	200	560	2	100	0.4	1.5	75	150	10	50	
KTC3542T	HH	○	KTA1542T	SH	30	3	▲0.9	200	560	2	500	0.18	1.5	30	450	10	500	
KTC3551T	HK	○	KTA1551T	SK	50	1	▲0.9	200	560	2	100	0.19	0.5	10	420	10	300	
KTC3552T	HL	○	KTA1552T	SL	50	3	▲0.9	200	560	2	100	0.12	1	50	380	10	500	
KTC3573	G5	●	-	-	100	1	0.5	200	500	10	250	1.0	0.2	1	-	-	-	SOT-89
KTC3528	-	●	-	-	20	7	1.1	300	900	2	100	0.032	1	100	160	10	50	
KTA1545W	-	●	-	-	-40	-5	1.35	200	300	-2	-1000	-0.17	-2	-200	120	-10	-100	SOT-223
KTD2082D	-	●	-	-	80	2	10	120	390	3	100	0.3	1	50	280	10	500	DPAK(3)

Note) ▲ : Package mounted on a ceramic board (600mm²X0.8mm), □ : h_{FE} Grade, ※ : Package Mounted on 99.5% Alumina 10X8X0.6mm
 Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

■ Junction Field Effect Transistor for IR Sensor

TypeNo.	Mark	AEC-Q	Max. Ratings			Y _f (mS)				I _{DSS} (μ A)				C _{iss} (pF)				PKG
			V _{GDO} (V)	I _G (mA)	P _D (mW)	Typ.	@V _{DS} (V)	@V _{GS} (V)	@f(kHz)	Min.	Max.	@V _{DS} (V)	@V _{GS} (V)	Typ.	@V _{DS} (V)	@V _{GS} (V)	@f(kHz)	
KTK491V	Z□	●	-20	10	100	2	10	0	1	Typ. 600	-	10	0	2	10	0	1	VSM
KTK491S	z1□	●	-20	10	200	2	10	0	1	Typ. 600	-	10	0	2	10	0	1	SOT-23

Note) □ : h_{FE} Grade, ● : Preparing for qualification of AEC-Q

Complex Device

General Purpose Transistor + Switching Diode

TypeNo.	Mark	AEC-Q	Internal Circuit	BJT(Q1)						DIODE(D1,D2)						COMMON		PKG
				Max. Ratings			h _{FE(1)}		V _{CE(sat)} (V)	V _{BE(sat)} (V)	Max. Rating			V _{F(3)} (V)	I _R (μA)	C _T (pF)	Max. Rating	
				V _{CEO} (V)	V _{EBO} (V)	I _C (A)	Min.	Max.	Max.	Max.	V _R (V)	@I _o (mA)	@I _{FSM} (A)	Max.	Max.	Max.	P _c (W)	
KTX711T	T7	○		-80	-5	-500	100	250	-0.25	-1.2	80	200	4	1.2	0.1	3	▲0.9	TS6
KTX811T	T8	○		80	5	500	100	250	0.25	1.2	80	200	4	1.2	0.1	3	▲0.9	

TypeNo.	Mark	AEC-Q	Internal Circuit	BJT(Q1)						DIODE(D1,D2)			COMMON				PKG	
				Max. Rating			h _{FE(1)}		V _{CE(sat)} (V)	V _{BE(sat)} (V)	Max. Rating		V _F (V)	Max. Rating		I _{o(OFF)} (μA)		C _{ob} (pF)
				V _{CEO} (V)	V _{EBO} (V)	I _C (mA)	Min.	Max.	Max.	Max.	@I _o (mA)	@I _{FSM} (A)	Max.	V _o (V)	P _c (W)	Max.		Typ.
KTX304S	E8	●		-60	-5	-600	100	300	-0.4	-1.3	150	2	1.2	-60	※0.35	-0.5	8.5	SOT-23
KTX404S	E7	●		75	6	600	100	300	0.3	1.2	100	2	1.2	40	※0.35	0.5	6.5	

Note) ▲ : Package mounted on a ceramic board (600mm²X0.8mm), □ : h_{FE} Grade, ※ : Package Mounted on 99.5% Alumina 10X8X0.6mm
 Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

General Purpose Transistor + BRT

TypeNo.	Mark	AEC-Q	Internal Circuit	GP TR(Q1)						BRT(Q2)					COMMON		PKG	
				Max. Rating			h _{FE(1)}		V _{CE(sat)} (V)	f _T (V)	Max. Rating			V _{O(ON)} (V)	V _{I(ON)} (V)	V _{I(OFF)} (V)		Max. Rating
				V _{CEO} (V)	V _{EBO} (V)	I _C (A)	Min.	Max.	Max.	Max.	V _o (V)	@I _o (mA)	@I _{FSM} (A)	Max.	Max.	Min.		P _c (W)
KTX213U	BH	○		-12	-6	-500	270	680	-0.25	260	50	40, -10	100	0.3	5	1	0.2	US6

Note) ○ : AEC-Q Qualified

Current Regulating Device

TypeNo.	Mark	AEC-Q	Internal Circuit	Max. Ratings				Output Current (mA)			Voltage Drop (V)		PKG
				V _S (V)	@I _o (mA)	V _o (V)	P _D (V)	Typ.	@V _S (V)	@V _{out} (V)	Max.	@I _o (mA)	
KCR401T	AC	○		40	65	38	▲0.9	10	10	8.6	1	10	TS6
KCR402T	AA	○		40	65	38	▲0.9	20	10	8.6	0.9	20	
KCR405T	AB	○		40	65	38	▲0.9	50	10	8.6	0.8	50	

Note) ▲ : Package mounted on a ceramic board (600mm²X0.8mm)
 Note) ○ : AEC-Q Qualified

Electrical Characteristics			UIP-3	VSM	ESM	USM		SOT-23		TO-92	
			 (1.0 X 0.6)	 (1.2 X 0.8)	 (1.6 X 0.85)	 (2.0 X 1.25)	 (2.93 X 1.3)				
Polarity	R1 [kΩ]	R2 [kΩ]	±50V/±0.1A	±50V/±0.1A	±50V/±0.1A	±50V/±0.1A	±12V/±0.5A	±50V/±0.1A	±50V/±0.8A	±50V/±0.1A	±50V/±0.8A
NPN	4.7	4.7		KRC401V	KRC401E	KRC401	KRC453	KRC101S	KRC243S	KRC101	KRC243
	10	10	KRC402UL	KRC402V	KRC402E	KRC402	KRC454	KRC102S	KRC244S	KRC102	KRC244
	22	22		KRC403V	KRC403E	KRC403		KRC103S		KRC103	
	47	47		KRC404V	KRC404E	KRC404		KRC104S		KRC104	
	2.2	47		KRC405V	KRC405E	KRC405		KRC105S		KRC105	
	4.7	47	KRC406UL	KRC406V	KRC406E	KRC406		KRC106S		KRC106	
	10	47		KRC407V	KRC407E	KRC407		KRC107S		KRC107	
	22	47		KRC408V	KRC408E	KRC408		KRC108S		KRC108	
	4.7	-		KRC410V	KRC410E	KRC410		KRC110S		KRC110	
	10	-		KRC411V	KRC411E	KRC411		KRC111S		KRC111	
	22	-		KRC413V	KRC413E	KRC413		KRC113S		KRC113	
	47	-		KRC414V	KRC414E	KRC414		KRC114S		KRC114	
	1	10		KRC416V	KRC416E	KRC416	KRC456	KRC116S	KRC245S	KRC116	KRC245
	2.2	2.2		KRC417V	KRC417E	KRC417	KRC452	KRC117S	KRC242S	KRC117	KRC242
	2.2	10		KRC418V	KRC418E	KRC418	KRC457	KRC118S	KRC246S	KRC118	KRC246
	4.7	10		KRC419V	KRC419E	KRC419		KRC119S		KRC119	
PNP	4.7	4.7		KRA301V	KRA301E	KRA301	KRA353	KRA101S	KRA223S	KRA101	KRA223
	10	10		KRA302V	KRA302E	KRA302	KRA354	KRA102S	KRA224S	KRA102	KRA224
	22	22		KRA303V	KRA303E	KRA303		KRA103S		KRA103	
	47	47		KRA304V	KRA304E	KRA304		KRA104S		KRA104	
	2.2	47		KRA305V	KRA305E	KRA305		KRA105S		KRA105	
	4.7	47		KRA306V	KRA306E	KRA306		KRA106S		KRA106	
	10	47		KRA307V	KRA307E	KRA307		KRA107S		KRA107	
	22	47		KRA308V	KRA308E	KRA308		KRA108S		KRA108	
	4.7	-		KRA310V	KRA310E	KRA310		KRA110S		KRA110	
	10	-		KRA311V	KRA311E	KRA311		KRA111S		KRA111	
	22	-		KRA313V	KRA313E	KRA313		KRA113S		KRA113	
	47	-		KRA314V	KRA314E	KRA314		KRA114S		KRA114	
	1	10		KRA316V	KRA316E	KRA316	KRA356	KRA116S	KRA225S	KRA116	KRA225
	2.2	2.2		KRA317V	KRA317E	KRA317	KRA352	KRA117S	KRA222S	KRA117	KRA222
	2.2	10		KRA318V	KRA318E	KRA318	KRA357	KRA118S	KRA226S	KRA118	KRA226
	4.7	10		KRA319V	KRA319E	KRA319		KRA119S		KRA119	

Electrical Characteristics			TESV		USV		TSV
							
Polarity	R1 [kΩ]	R2 [kΩ]	±50V/±0.1A		±50V/±0.1A		±50V/±0.8A
NPN + NPN	4.7	4.7	KRC651E		KRC651U		KRC643T
	10	10	KRC652E		KRC652U		KRC644T
	22	22	KRC653E		KRC653U		
	47	47	KRC654E		KRC654U		
	2.2	47	KRC655E		KRC655U		
	4.7	47	KRC656E		KRC656U		
	10	47	KRC657E		KRC657U		
	22	47	KRC658E		KRC658U		
	4.7	-	KRC660E		KRC660U		
	10	-	KRC661E		KRC661U		
	22	-	KRC663E		KRC663U		
	47	-	KRC664E		KRC664U		
	1	10	KRC666E		KRC666U		KRC645T
	2.2	2.2	KRC667E		KRC667U		KRC642T
	2.2	10	KRC668E		KRC668U		KRC646T
	4.7	10	KRC669E		KRC669U		
NPN + PNP	NPN:10/10	PNP:10/10		KRX101E		KRX101U	
	NPN:47/47	PNP:10/47		KRX102E		KRX102U	
	NPN:22/22	PNP:22/22		KRX103E		KRX103U	
	NPN:47/47	PNP:4.7/10		KRX104E			
PNP + PNP	4.7	4.7	KRA551E		KRA551U		KRA523T
	10	10	KRA552E		KRA552U		KRA524T
	22	22	KRA553E		KRA553U		
	47	47	KRA554E		KRA554U		
	2.2	47	KRA555E		KRA555U		
	4.7	47	KRA556E		KRA556U		
	10	47	KRA557E		KRA557U		
	22	47	KRA558E		KRA558U		
	4.7	-	KRA560E		KRA560U		
	10	-	KRA561E		KRA561U		
	22	-	KRA563E		KRA563U		
	47	-	KRA564E		KRA564U		
	1	10	KRA566E		KRA566U		KRA525T
	2.2	2.2	KRA567E		KRA567U		KRA522T
	2.2	10	KRA568E		KRA568U		KRA526T
	4.7	10	KRA569E		KRA569U		

Electrical Characteristics			TES6			US6			TS6
									
Polarity	R1 [kΩ]	R2 [kΩ]	±50V/±0.1A			±50V/±0.1A			±50V/±0.8A
NPN + NPN	4.7	4.7	KRC821E	KRC851E		KRC821U	KRC851U		KRC843T
	10	10	KRC822E	KRC852E		KRC822U	KRC852U		KRC844T
	22	22	KRC823E	KRC853E		KRC823U	KRC853U		
	47	47	KRC824E	KRC854E		KRC824U	KRC854U		
	2.2	47	KRC825E	KRC855E		KRC825U	KRC855U		
	4.7	47	KRC826E	KRC856E		KRC826U	KRC856U		
	10	47	KRC827E	KRC857E		KRC827U	KRC857U		
	22	47	KRC828E	KRC858E		KRC828U	KRC858U		
	4.7	-	KRC830E	KRC860E		KRC830U	KRC860U		
	10	-	KRC831E	KRC861E		KRC831U	KRC861U		
	22	-	KRC833E	KRC863E		KRC833U	KRC863U		
	47	-	KRC834E	KRC864E		KRC834U	KRC864U		
	1	10	KRC836E	KRC866E		KRC836U	KRC866U		KRC845T
	2.2	2.2	KRC837E	KRC867E		KRC837U	KRC867U		KRC842T
	2.2	10	KRC838E	KRC868E		KRC838U	KRC868U		KRC846T
4.7	10	KRC839E	KRC869E		KRC839U	KRC869U			
NPN + PNP	NPN:10/10	PNP:10/10			KRX201E			KRX201U	
	NPN:22/22	PNP:22/22			KRX202E			KRX202U	
	NPN:47/47	PNP:47/47			KRX203E			KRX203U	
	NPN:2.2/47	PNP:2.2/47			KRX204E			KRX204U	
	NPN:10/47	PNP:10/47			KRX206E				
	NPN:10/10	PNP:10/47			KRX207E			KRX207U	
	NPN:47/47	PNP:4.7/10			KRX208E				
	NPN:47/47	PNP:10/47			KRX209E			KRX209U	
	NPN:10/10	PNP:1/10			KRX210E				
PNP + PNP	4.7	4.7	KRA721E	KRA751E		KRA721U	KRA751U		KRA723T
	10	10	KRA722E	KRA752E		KRA722U	KRA752U		KRA724T
	22	22	KRA723E	KRA753E		KRA723U	KRA753U		
	47	47	KRA724E	KRA754E		KRA724U	KRA754U		
	2.2	47	KRA725E	KRA755E		KRA725U	KRA755U		
	4.7	47	KRA726E	KRA756E		KRA726U	KRA756U		
	10	47	KRA727E	KRA757E		KRA727U	KRA757U		
	22	47	KRA728E	KRA758E		KRA728U	KRA758U		
	4.7	-	KRA730E	KRA760E		KRA730U	KRA760U		
	10	-	KRA731E	KRA761E		KRA731U	KRA761U		
	22	-	KRA733E	KRA763E		KRA733U	KRA763U		
	47	-	KRA734E	KRA764E		KRA734U	KRA764U		
	1	10	KRA736E	KRA766E		KRA736U	KRA766U		KRA725T
	2.2	2.2	KRA737E	KRA767E		KRA737U	KRA767U		KRA722T
	2.2	10	KRA738E	KRA768E		KRA738U	KRA768U		KRA726T
4.7	10	KRA739E	KRA769E		KRA739U	KRA769U			

Transistors with Built-in Bias Resistor

General Purpose BRT

Type No.						Max. Ratings			G _I				V _{O(ON)} (V)			R1 (kΩ)	R2 (kΩ)	PKG	
NPN	Mark	AEC-Q	PNP	Mark	AEC-Q	@V _O (V)	@I _O (mA)	@P _D (mW)	Min.	Typ.	@V _O (V)	@I _O (mA)	Max.	@I _O (mA)	@I _I (mA)				
KRC402UL	NB	○	-	-	-	50	100	250	50	80	5	10	0.3	10	0.5	10	10	ULP-3	
KRC406UL	NF	○	-	-	-	50	100	250	80	200	5	10	0.3	10	0.5	4.7	47		
KRC401V	NA	○	KRA301V+	PA	○	50	100	100	30	55	5	10	0.3	10	0.5	4.7	4.7	VSM	
KRC402V	NB	○	KRA302V	PB	○	50	100	100	50	80	5	10	0.3	10	0.5	10	10		
KRC403V	NC	○	KRA303V+	PC	○	50	100	100	70	120	5	10	0.3	10	0.5	22	22		
KRC404V	ND	○	KRA304V	PD	○	50	100	100	80	200	5	10	0.3	10	0.5	47	47		
KRC405V	NE	○	KRA305V+	PE	○	50	100	100	80	200	5	10	0.3	10	0.5	2.2	47		
KRC406V	NF	○	KRA306V	PF	○	50	100	100	80	200	5	10	0.3	10	0.5	4.7	47		
KRC407V	NH	○	KRA307V+	PH	○	50	100	100	80	150	5	10	0.3	10	0.5	10	47		
KRC408V	NI	○	KRA308V+	PI	○	50	100	100	80	150	5	10	0.3	10	0.5	22	47		
KRC410V	NK	○	KRA310V	PK	○	50	100	100	120	-	5	1	0.3	10	0.5	4.7	-		
KRC411V	NM	○	KRA311V	PM	○	50	100	100	120	-	5	1	0.3	10	0.5	10	-		
KRC413V+	NO	○	KRA313V+	PO	○	50	100	100	120	-	5	1	0.3	10	0.5	22	-		
KRC414V	NP	○	KRA314V+	PP	○	50	100	100	120	-	5	1	0.3	10	0.5	47	-		
KRC416V+	N2	○	KRA316V+	P2	○	50	100	100	33	-	5	5	0.3	10	0.5	1	10		
KRC417V+	N4	○	KRA317V+	P4	○	50	100	100	20	-	5	20	0.3	10	0.5	2.2	2.2		
KRC418V+	N5	○	KRA318V+	P5	○	50	100	100	33	-	5	10	0.3	10	0.5	2.2	10		
KRC419V+	N6	○	KRA319V+	P6	○	50	100	100	30	-	5	10	0.3	10	0.5	4.7	10		
KRC422V+	N9	●	KRA322V	P9	●	50	100	100	62	-	5	5	0.3	5	0.25	100	100		
KRC401E	NA	○	KRA301E+	PA	○	50	100	100	30	55	5	10	0.3	10	0.5	4.7	4.7		ESM
KRC402E	NB	○	KRA302E	PB	○	50	100	100	50	80	5	10	0.3	10	0.5	10	10		
KRC403E	NC	○	KRA303E	PC	○	50	100	100	70	120	5	10	0.3	10	0.5	22	22		
KRC404E	ND	○	KRA304E	PD	○	50	100	100	80	200	5	10	0.3	10	0.5	47	47		
KRC405E	NE	○	KRA305E	PE	○	50	100	100	80	200	5	10	0.3	10	0.5	2.2	47		
KRC406E	NF	○	KRA306E	PF	○	50	100	100	80	200	5	10	0.3	10	0.5	4.7	47		
KRC407E	NH	○	KRA307E	PH	○	50	100	100	80	150	5	10	0.3	10	0.5	10	47		
KRC408E	NI	○	KRA308E+	PI	○	50	100	100	80	150	5	10	0.3	10	0.5	22	47		
KRC410E	NK	○	KRA310E	PK	○	50	100	100	120	-	5	1	0.3	10	0.5	4.7	-		
KRC411E	NM	○	KRA311E+	PM	○	50	100	100	120	-	5	1	0.3	10	0.5	10	-		
KRC413E+	NO	○	KRA313E+	PO	○	50	100	100	120	-	5	1	0.3	10	0.5	22	-		
KRC414E	NP	○	KRA314E+	PP	○	50	100	100	120	-	5	1	0.3	10	0.5	47	-		
KRC416E+	N2	○	KRA316E	P2	○	50	100	100	33	-	5	5	0.3	10	0.5	1	10		
KRC417E+	N4	○	KRA317E+	P4	○	50	100	100	20	-	5	20	0.3	10	0.5	2.2	2.2		
KRC418E+	N5	○	KRA318E	P5	○	50	100	100	33	-	5	10	0.3	10	0.5	2.2	10		
KRC419E+	N6	○	KRA319E+	P6	○	50	100	100	30	-	5	10	0.3	10	0.5	4.7	10		

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

Note) + : Irregular Production

■ General Purpose BRT

Type No.						Max. Ratings			G _I				V _{ORON} (V)			R1 (kΩ)	R2 (kΩ)	PKG	
NPN	Mark	AEC-Q	PNP	Mark	AEC-Q	@V _O (V)	@I _O (mA)	@P _O (mW)	Min.	Typ.	@V _O (V)	@I _O (mA)	Max.	@I _O (mA)	@I _I (mA)				
KRC401	NA	○	KRA301	PA	○	50	100	100	30	55	5	10	0.3	10	0.5	4.7	4.7	USM	
KRC402	NB	○	KRA302	PB	○	50	100	100	50	80	5	10	0.3	10	0.5	10	10		
KRC403	NC	○	KRA303	PC	○	50	100	100	70	120	5	10	0.3	10	0.5	22	22		
KRC404	ND	○	KRA304	PD	○	50	100	100	80	200	5	10	0.3	10	0.5	47	47		
KRC405	NE	○	KRA305	PE	○	50	100	100	80	200	5	10	0.3	10	0.5	2.2	47		
KRC406	NF	○	KRA306	PF	○	50	100	100	80	200	5	10	0.3	10	0.5	4.7	47		
KRC407	NH	○	KRA307	PE	○	50	100	100	80	150	5	10	0.3	10	0.5	10	47		
KRC408	NI	○	KRA308+	PF	○	50	100	100	80	150	5	10	0.3	10	0.5	22	47		
KRC410	NK	○	KRA310+	PK	○	50	100	100	120	-	5	1	0.3	10	0.5	4.7	-		
KRC411+	NM	○	KRA311	PM	○	50	100	100	120	-	5	1	0.3	10	0.5	10	-		
KRC413+	NO	○	KRA313	PO	○	50	100	100	120	-	5	1	0.5	10	0.5	22	-		
KRC414	NP	○	KRA314+	PP	○	50	100	100	120	-	5	1	0.3	10	0.5	47	-		
KRC416	N2	○	KRA316	P2	○	50	100	100	33	-	5	5	0.3	10	0.5	1	10		
KRC417	N4	○	KRA317+	P4	○	50	100	100	20	-	5	20	0.3	10	0.5	2.2	2.2		
KRC418	N5	○	KRA318	P5	○	50	100	100	33	-	5	10	0.3	10	0.5	2.2	10		
KRC419	N6	○	KRA319	P6	○	50	100	100	30	-	5	10	0.3	10	0.5	4.7	10		
KRC101S	NA	○	KRA101S	PA	○	50	100	200	30	55	5	10	0.3	10	0.5	4.7	4.7		SOT-23
KRC102S	NB	○	KRA102S	PB	○	50	100	200	50	80	5	10	0.3	10	0.5	10	10		
KRC103S	NC	○	KRA103S	PC	○	50	100	200	70	120	5	10	0.3	10	0.5	22	22		
KRC104S	ND	○	KRA104S	PD	○	50	100	200	80	200	5	10	0.3	10	0.5	47	47		
KRC105S	NE	○	KRA105S	PE	○	50	100	200	80	200	5	10	0.3	10	0.5	2.2	47		
KRC106S	NF	○	KRA106S	PF	○	50	100	200	80	200	5	10	0.3	10	0.5	4.7	47		
KRC107S	NH	○	KRA107S	PH	○	50	100	200	80	150	5	10	0.3	10	0.5	10	47		
KRC108S	NI	○	KRA108S	PI	○	50	100	200	80	150	5	10	0.3	10	0.5	22	47		
KRC110S	NK	○	KRA110S	PK	○	50	100	200	120	-	5	1	0.3	10	0.5	4.7	-		
KRC111S	NM	○	KRA111S	PM	○	50	100	200	120	-	5	1	0.3	10	0.5	10	-		
KRC113S+	NO	○	KRA113S+	PO	○	50	100	200	120	-	5	1	0.3	10	0.5	22	-		
KRC114S	NP	○	KRA114S+	PP	○	50	100	200	120	-	5	1	0.3	10	0.5	47	-		
KRC116S	N2	○	KRA116S	P2	○	50	100	200	33	-	5	1	0.3	10	0.5	1	10		
KRC117S+	N4	○	KRA117S	P4	○	50	100	200	20	-	5	20	0.3	10	0.5	2.2	2.2		
KRC118S	N5	○	KRA118S	P5	○	50	100	200	33	-	5	10	0.3	10	0.5	2.2	10		
KRC119S	N6	○	KRA119S	P6	○	50	100	200	30	-	5	10	0.3	10	0.5	4.7	10		
KRC101	-	●	KRA101	-	●	50	100	625	30	55	5	10	0.3	10	0.5	4.7	4.7	TO-92	
KRC102	-	●	KRA102	-	●	50	100	625	50	80	5	10	0.3	10	0.5	10	10		
KRC103	-	●	KRA103	-	●	50	100	625	70	120	5	10	0.3	10	0.5	22	22		
KRC104	-	●	KRA104	-	●	50	100	625	80	200	5	10	0.3	10	0.5	47	47		
KRC105	-	●	KRA105	-	●	50	100	625	80	200	5	10	0.3	10	0.5	2.2	47		
KRC106	-	●	KRA106	-	●	50	100	625	80	200	5	10	0.3	10	0.5	4.7	47		
KRC107	-	●	KRA107	-	●	50	100	625	80	150	5	10	0.3	10	0.5	10	47		
KRC108+	-	●	KRA108+	-	●	50	100	625	80	150	5	10	0.3	10	0.5	22	47		
KRC110	-	●	KRA110	-	●	50	100	625	120	-	5	1	0.3	10	0.5	4.7	-		
KRC111	-	●	KRA111	-	●	50	100	625	120	-	5	1	0.3	10	0.5	10	-		
KRC113+	-	●	KRA113+	-	●	50	100	625	120	-	5	1	0.3	10	0.5	22	-		
KRC114	-	●	KRA114+	-	●	50	100	625	120	-	5	1	0.3	10	0.5	47	-		
KRC116	-	●	KRA116	-	●	50	100	625	33	-	5	5	0.3	10	0.5	1	10		
KRC117+	-	●	KRA117	-	●	50	100	625	20	-	5	20	0.3	10	0.5	2.2	2.2		
KRC118	-	●	KRA118+	-	●	50	100	625	33	-	5	10	0.3	10	0.5	2.2	10		
KRC119	-	●	KRA119	-	●	50	100	625	30	-	5	10	0.3	10	0.5	4.7	10		

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q
 Note) + : Irregular Production

BJT

Transistors with Built-in Bias Resistor

■ Complex BRT (NPN+NPN, PNP+PNP)

TypeNo.	Mark	AEC-Q	Internal circuit (Top view)	Max. Ratings			G _I				V _{0(on)} (V)			R1 (kΩ)	R2 (kΩ)	PKG
				V _O (V)	I _O (A)	P _D (mW)	Min.	Typ.	@V _O (V)	@I _O (mA)	Max.	@I _O (mA)	@I _I (mA)			
KRA551E+	PA	○		-50	-0.1	200	30	55	-5	-10	-0.3	-10	-0.5	4.7	4.7	TESV
KRA552E+	PB	○		-50	-0.1	200	50	80	-5	-10	-0.3	-10	-0.5	10	10	
KRA553E+	PC	○		-50	-0.1	200	70	120	-5	-10	-0.3	-10	-0.5	22	22	
KRA554E+	PD	○		-50	-0.1	200	80	200	-5	-10	-0.3	-10	-0.5	47	47	
KRA555E+	PE	○		-50	-0.1	200	80	200	-5	-10	-0.3	-10	-0.5	2.2	47	
KRA556E+	PF	○		-50	-0.1	200	80	200	-5	-10	-0.3	-10	-0.5	4.7	47	
KRA557E+	PH	○		-50	-0.1	200	80	150	-5	-10	-0.3	-10	-0.5	10	47	
KRA558E+	PI	○		-50	-0.1	200	80	150	-5	-10	-0.3	-10	-0.5	22	47	
KRA560E+	PK	○		-50	-0.1	200	300	-	-5	-1	-0.3	-10	-0.5	4.7	-	
KRA561E+	PM	○		-50	-0.1	200	300	-	-5	-1	-0.3	-10	-0.5	10	-	
KRA562E+	PN	○		-50	-0.1	200	300	-	-5	-1	-0.3	-10	-0.5	100	-	
KRA563E+	PO	○		-50	-0.1	200	300	-	-5	-1	-0.3	-10	-0.5	22	-	
KRA564E+	PP	○	-50	-0.1	200	300	-	-5	-1	-0.3	-10	-0.5	47	-		
KRA566E+	P2	○		-50	-0.1	200	33	-	-5	-5	-0.3	-10	-0.5	1	10	
KRA567E+	P4	○		-50	-0.1	200	20	-	-5	-20	-0.3	-10	-0.5	2.2	2.2	
KRA568E+	P5	○		-50	-0.1	200	33	-	-5	-10	-0.3	-10	-0.5	2.2	10	
KRA569E+	P6	○		-50	-0.1	200	30	-	-5	-10	-0.3	-10	-0.5	4.7	10	
KRC651E+	NA	○		50	0.1	200	30	55	5	10	0.3	10	0.5	4.7	4.7	
KRC652E+	NB	○		50	0.1	200	50	80	5	10	0.3	10	0.5	10	10	
KRC653E	NC	○		50	0.1	200	70	120	5	10	0.3	10	0.5	22	22	
KRC654E+	ND	○		50	0.1	200	80	200	5	10	0.3	10	0.5	47	47	
KRC655E+	NE	○		50	0.1	200	80	200	5	10	0.3	10	0.5	2.2	47	
KRC656E	NF	○		50	0.1	200	80	200	5	10	0.3	10	0.5	4.7	47	
KRC657E	NH	○		50	0.1	200	80	150	5	10	0.3	10	0.5	10	47	
KRC658E+	NI	○		50	0.1	200	80	150	5	10	0.3	10	0.5	22	47	
KRC660E+	NK	○		50	0.1	200	120	-	5	1	0.3	10	0.5	4.7	-	
KRC661E+	NM	○		50	0.1	200	120	-	5	1	0.3	10	0.5	10	-	
KRC662E+	NN	○		50	0.1	200	120	-	5	1	0.3	10	0.5	100	-	
KRC663E+	NO	○		50	0.1	200	120	-	5	1	0.3	10	0.5	22	-	
KRC664E+	NP	○	50	0.1	200	120	-	5	1	0.3	10	0.5	47	-		
KRC666E+	N2	○		50	0.1	200	33	-	5	5	0.3	10	0.5	1	10	
KRC667E+	N4	○		50	0.1	200	20	-	5	20	0.3	10	0.5	2.2	2.2	
KRC668E+	N5	○		50	0.1	200	33	-	5	10	0.3	10	0.5	2.2	10	
KRC669E+	N6	○		50	0.1	200	30	-	5	10	0.3	10	0.5	4.7	10	

Note) ○ : AEC-Q Qualified
 Note) + : Irregular Production

■ Complex BRT (NPN+NPN, PNP+PNP)

TypeNo.	Mark	AEC-Q	Internal circuit (Top view)	Max. Ratings			G _i				V _{O(ON)} (V)			R1 (kΩ)	R2 (kΩ)	PKG
				V _O (V)	I _O (mA)	P _D (mW)	Min.	Typ.	@V _O (V)	@I _O (mA)	Max.	@I _O (mA)	@I _I (mA)			
KRA721E+	JA	○		-50	-100	200	30	55	-5	-10	-0.3	-10	-0.5	4.7	4.7	TES6
KRA722E+	JB	○		-50	-100	200	50	80	-5	-10	-0.3	-10	-0.5	10	10	
KRA723E+	JC	○		-50	-100	200	70	120	-5	-10	-0.3	-10	-0.5	22	22	
KRA724E+	JD	○		-50	-100	200	80	200	-5	-10	-0.3	-10	-0.5	47	47	
KRA725E+	JE	○		-50	-100	200	80	200	-5	-10	-0.3	-10	-0.5	2.2	47	
KRA726E+	JF	○		-50	-100	200	80	200	-5	-10	-0.3	-10	-0.5	4.7	47	
KRA727E+	JH	○		-50	-100	200	80	150	-5	-10	-0.3	-10	-0.5	10	47	
KRA728E+	JI	○		-50	-100	200	80	150	-5	-10	-0.3	-10	-0.5	22	47	
KRA730E+	JK	○			-50	-100	200	120	-	-5	-1	-0.3	-10	-0.5	4.7	
KRA731E+	JM	○	-50		-100	200	120	-	-5	-1	-0.3	-10	-0.5	10	-	
KRA732E+	JN	○	-50		-100	200	120	-	-5	-1	-0.3	-10	-0.5	100	-	
KRA733E+	JO	○	-50		-100	200	120	-	-5	-1	-0.3	-10	-0.5	22	-	
KRA734E+	JP	○	-50		-100	200	120	-	-5	-1	-0.3	-10	-0.5	47	-	
KRA736E+	J2	○		-50	-100	200	33	-	-5	-5	-0.3	-10	-0.5	1	10	
KRA737E+	J4	○		-50	-100	200	20	-	-5	-20	-0.3	-10	-0.5	2.2	2.2	
KRA738E+	J5	○		-50	-100	200	33	-	-5	-10	-0.3	-10	-0.5	2.2	10	
KRA739E+	J6	○		-50	-100	200	30	-	-5	-10	-0.3	-10	-0.5	4.7	10	
KRC821E+	YA	○			50	100	200	30	55	5	10	0.3	10	0.5	4.7	
KRC822E+	YB	○	50		100	200	50	80	5	10	0.3	10	0.5	10	10	
KRC823E+	YC	○	50		100	200	70	120	5	10	0.3	10	0.5	22	22	
KRC824E+	YD	○	50		100	200	80	200	5	10	0.3	10	0.5	47	47	
KRC825E+	YE	○	50		100	200	80	200	5	10	0.3	10	0.5	2.2	47	
KRC826E+	YF	○	50		100	200	80	200	5	10	0.3	10	0.5	4.7	47	
KRC827E+	YH	○	50		100	200	80	150	5	10	0.3	10	0.5	10	47	
KRC830E	YK	○	50		100	200	120	-	5	1	0.3	10	0.5	4.7	-	
KRC831E	YM	○	50		100	200	120	-	5	1	0.3	10	0.5	10	-	
KRC833E+	YO	○	50		100	200	120	-	5	1	0.3	10	0.5	22	-	
KRC834E+	YP	○	50	100	200	120	-	5	1	0.3	10	0.5	47	-		
KRC836E+	Y2	○		50	100	200	33	-	5	5	0.3	10	0.5	1	10	
KRC837E+	Y4	○		50	100	200	20	-	5	20	0.3	10	0.5	2.2	2.2	
KRC838E+	Y5	○		50	100	200	33	-	5	10	0.3	10	0.5	2.2	10	
KRC839E+	Y6	○		50	100	200	30	-	5	10	0.3	10	0.5	4.7	10	

Note) ○ : AEC-Q Qualified
 Note) + : Irregular Production

BJT

Transistors with Built-in Bias Resistor

Complex BRT (NPN+NPN, PNP+PNP)

Type No.	Mark	AEC-Q	Internal circuit (Top view)	Max. Ratings			G _i				V _{O(ON)} (V)			R1 (kΩ)	R2 (kΩ)	PKG
				V _O (V)	I _O (mA)	P _D (mW)	Min.	Max.	@V _O (V)	@I _O (mA)	Max.	@I _O (mA)	@I _I (mA)			
KRA751E+	PA	○		-50	-100	200	30	55	-5	-10	-0.3	-10	-0.5	4.7	4.7	TES6
KRA752E+	PB	○		-50	-100	200	50	80	-5	-10	-0.3	-10	-0.5	10	10	
KRA753E+	PC	○		-50	-100	200	70	120	-5	-10	-0.3	-10	-0.5	22	22	
KRA754E+	PD	○		-50	-100	200	80	200	-5	-10	-0.3	-10	-0.5	47	47	
KRA755E+	PE	○		-50	-100	200	80	200	-5	-10	-0.3	-10	-0.5	2.2	47	
KRA756E+	PF	○		-50	-100	200	80	200	-5	-10	-0.3	-10	-0.5	4.7	47	
KRA757E+	PH	○		-50	-100	200	80	150	-5	-10	-0.3	-10	-0.5	10	47	
KRA760E+	PK	○		-50	-100	200	120	-	-5	-1	-0.3	-10	-0.5	4.7	-	
KRA761E+	PM	○		-50	-100	200	120	-	-5	-1	-0.3	-10	-0.5	10	-	
KRA763E+	PO	○		-50	-100	200	120	-	-5	-1	-0.3	-10	-0.5	22	-	
KRA764E+	PP	○		-50	-100	200	120	-	-5	-1	-0.3	-10	-0.5	47	-	
KRA766E+	P2	○		-50	-100	200	33	-	-5	-5	-0.3	-10	-0.5	1	10	
KRA767E+	P4	○		-50	-100	200	20	-	-5	-20	-0.3	-10	-0.5	2.2	2.2	
KRA768E+	P5	○		-50	-100	200	33	-	-5	-10	-0.3	-10	-0.5	2.2	10	
KRA769E+	P6	○		-50	-100	200	30	-	-5	-10	-0.3	-10	-0.5	4.7	10	
KRC851E+	NA	○			50	100	200	30	55	5	10	0.3	10	0.5	4.7	
KRC852E	NB	○	50		100	200	50	80	5	10	0.3	10	0.5	10	10	
KRC853E+	NC	○	50		100	200	70	120	5	10	0.3	10	0.5	22	22	
KRC854E	ND	○	50		100	200	80	200	5	10	0.3	10	0.5	47	47	
KRC855E	NE	○	50		100	200	80	200	5	10	0.3	10	0.5	2.2	47	
KRC856E+	NF	○	50		100	200	80	200	5	10	0.3	10	0.5	4.7	47	
KRC857E	NH	○	50		100	200	80	150	5	10	0.3	10	0.5	10	47	
KRC858E+	NI	○	50		100	200	80	150	5	10	0.3	10	0.5	22	47	
KRC860E+	NK	○	50		100	200	120	-	5	1	0.3	10	0.5	4.7	-	
KRC861E	NM	○	50		100	200	120	-	5	1	0.3	10	0.5	10	-	
KRC863E+	NO	○	50	100	200	120	-	5	1	0.3	10	0.5	22	-		
KRC864E+	NP	○	50	100	200	120	-	5	1	0.3	10	0.5	47	-		
KRC866E+	N2	○	50	100	200	33	-	5	5	0.3	10	0.5	1	10		
KRC867E+	N4	○	50	100	200	20	-	5	20	0.3	10	0.5	2.2	2.2		
KRC868E+	N5	○	50	100	200	33	-	5	10	0.3	10	0.5	2.2	10		
KRC869E+	N6	○	50	100	200	30	-	5	10	0.3	10	0.5	4.7	10		
KRA551U+	PA	○		-50	-100	200	30	55	-5	-10	-0.3	-10	-0.5	4.7	4.7	USV
KRA552U+	PB	○		-50	-100	200	50	80	-5	-10	-0.3	-10	-0.5	10	10	
KRA553U+	PC	○		-50	-100	200	70	120	-5	-10	-0.3	-10	-0.5	22	22	
KRA554U+	PD	○		-50	-100	200	80	200	-5	-10	-0.3	-10	-0.5	47	47	
KRA555U	PE	○		-50	-100	200	80	200	-5	-10	-0.3	-10	-0.5	2.2	47	
KRA556U+	PF	○		-50	-100	200	80	200	-5	-10	-0.3	-10	-0.5	4.7	47	
KRA557U+	PH	○		-50	-100	200	80	150	-5	-10	-0.3	-10	-0.5	10	47	
KRA558U+	PI	○		-50	-100	200	80	150	-5	-10	-0.3	-10	-0.5	22	47	
KRA560U+	PK	○		-50	-100	200	120	-	-5	-1	-0.3	-10	-0.5	4.7	-	
KRA561U+	PM	○		-50	-100	200	120	-	-5	-1	-0.3	-10	-0.5	10	-	
KRA563U+	PO	○	-50	-100	200	120	-	-5	-1	-0.3	-10	-0.5	22	-		
KRA564U+	PP	○	-50	-100	200	120	-	-5	-1	-0.3	-10	-0.5	47	-		
KRA566U+	P2	○	-50	-100	200	33	-	-5	-5	-0.3	-10	-0.5	1	10		
KRA567U+	P4	○	-50	-100	200	20	-	-5	-20	-0.3	-10	-0.5	2.2	2.2		
KRA568U+	P5	○	-50	-100	200	33	-	-5	-10	-0.3	-10	-0.5	2.2	10		
KRA569U+	P6	○	-50	-100	200	30	-	-5	-10	-0.3	-10	-0.5	4.7	10		

Note) ○ : AEC-Q Qualified
 Note) + : Irregular Production

■ Complex BRT (NPN+NPN, PNP+PNP)

TypeNo.	Mark	AEC-Q	Internal circuit (Top view)	Max. Ratings			G _i				V _{O(ON)} (V)			R1 (kΩ)	R2 (kΩ)	PKG
				V _O (V)	I _O (mA)	P _D (mW)	Min.	Max.	@V _O (V)	@I _O (mA)	Max.	@I _O (mA)	@I _I (mA)			
KRC651U+	NA	○		50	100	200	30	55	5	10	0.3	10	0.5	4.7	4.7	USV
KRC652U	NB	○		50	100	200	50	80	5	10	0.3	10	0.5	10	10	
KRC653U+	NC	○		50	100	200	70	120	5	10	0.3	10	0.5	22	22	
KRC654U+	ND	○		50	100	200	80	200	5	10	0.3	10	0.5	47	47	
KRC655U	NE	○		50	100	200	80	200	5	10	0.3	10	0.5	2.2	47	
KRC656U	NF	○		50	100	200	80	200	5	10	0.3	10	0.5	4.7	47	
KRC657U	NH	○		50	100	200	80	150	5	10	0.3	10	0.5	10	47	
KRC658U+	NI	○		50	100	200	80	150	5	10	0.3	10	0.5	22	47	
KRC660U	NK	○		50	100	200	120	-	5	1	0.3	10	0.5	4.7	-	
KRC661U+	NM	○		50	100	200	120	-	5	1	0.3	10	0.5	10	-	
KRC663U+	NO	○		50	100	200	120	-	5	1	0.3	10	0.5	22	-	
KRC664U+	NP	○		50	100	200	120	-	5	1	0.3	10	0.5	47	-	
KRC666U+	N2	○		50	100	200	33	-	5	5	0.3	10	0.5	1	10	
KRC667U+	N4	○		50	100	200	20	-	5	20	0.3	10	0.5	2.2	2.2	
KRC668U+	N5	○		50	100	200	33	-	5	10	0.3	10	0.5	2.2	10	
KRC669U+	N6	○		50	100	200	30	-	5	10	0.3	10	0.5	4.7	10	
KRA721U+	JA	○			-50	-100	200	30	55	-5	-10	-0.3	-10	-0.5	4.7	4.7
KRA722U+	JB	○			-50	-100	200	50	80	-5	-10	-0.3	-10	-0.5	10	10
KRA723U+	JC	○	-50		-100	200	70	120	-5	-10	-0.3	-10	-0.5	22	22	
KRA724U+	JD	○	-50		-100	200	80	200	-5	-10	-0.3	-10	-0.5	47	47	
KRA725U+	JE	○	-50		-100	200	80	200	-5	-10	-0.3	-10	-0.5	2.2	47	
KRA726U+	JF	○	-50		-100	200	80	200	-5	-10	-0.3	-10	-0.5	4.7	47	
KRA727U+	JH	○	-50		-100	200	80	150	-5	-10	-0.3	-10	-0.5	10	47	
KRA728U+	JI	○	-50		-100	200	80	150	-5	-10	-0.3	-10	-0.5	22	47	
KRA730U+	JK	○		-50	-100	200	120	-	-5	-1	-0.3	-10	-0.5	4.7	-	
KRA731U+	JM	○		-50	-100	200	120	-	-5	-1	-0.3	-10	-0.5	10	-	
KRA733U+	JO	○		-50	-100	200	120	-	-5	-1	-0.3	-10	-0.5	22	-	
KRA734U+	JP	○		-50	-100	200	120	-	-5	-1	-0.3	-10	-0.5	47	-	
KRA736U+	J2	○		-50	-100	200	33	-	-5	-5	-0.3	-10	-0.5	1	10	
KRA737U+	J4	○		-50	-100	200	20	-	-5	-20	-0.3	-10	-0.5	2.2	2.2	
KRA738U+	J5	○		-50	-100	200	33	-	-5	-10	-0.3	-10	-0.5	2.2	10	
KRA739U+	J6	○		-50	-100	200	30	-	-5	-10	-0.3	-10	-0.5	4.7	10	
KRC821U+	YA	○		50	100	200	30	55	5	10	0.3	10	0.5	4.7	4.7	US6
KRC822U+	YB	○		50	100	200	50	80	5	10	0.3	10	0.5	10	10	
KRC823U+	YC	○		50	100	200	70	120	5	10	0.3	10	0.5	22	22	
KRC824U+	YD	○		50	100	200	80	200	5	10	0.3	10	0.5	47	47	
KRC825U+	YE	○		50	100	200	80	200	5	10	0.3	10	0.5	2.2	47	
KRC826U+	YF	○		50	100	200	80	200	5	10	0.3	10	0.5	4.7	47	
KRC827U+	YH	○		50	100	200	80	150	5	10	0.3	10	0.5	10	47	
KRC828U+	YI	○		50	100	200	80	150	5	10	0.3	10	0.5	22	47	
KRC830U+	YK	○		50	100	200	120	-	5	1	0.3	10	0.5	4.7	-	
KRC831U+	YM	○		50	100	200	120	-	5	1	0.3	10	0.5	10	-	
KRC833U+	YO	○		50	100	200	120	-	5	1	0.3	10	0.5	22	-	
KRC834U+	YP	○		50	100	200	120	-	5	1	0.3	10	0.5	47	-	
KRC836U+	Y2	○		50	100	200	33	-	5	5	0.3	10	0.5	1	10	
KRC837U+	Y4	○		50	100	200	20	-	5	20	0.3	10	0.5	2.2	2.2	
KRC838U+	Y5	○		50	100	200	33	-	5	10	0.3	10	0.5	2.2	10	
KRC839U+	Y6	○		50	100	200	30	-	5	10	0.3	10	0.5	4.7	10	

Note) ○ : AEC-Q Qualified
 Note) + : Irregular Production

BJT

Transistors with Built-in Bias Resistor

■ Complex BRT (NPN+NPN, PNP+PNP)

TypeNo.	Mark	AEC-Q	Internal circuit (Top view)	Max. Ratings			G _i				V _{O(ON)} (V)			R1 (kΩ)	R2 (kΩ)	PKG
				V _O (V)	I _O (mA)	P _D (mW)	Min.	Max.	@V _O (V)	@I _O (mA)	Max.	@I _O (mA)	@I _I (mA)			
KRA751U+	PA	○		-50	-100	200	30	55	-5	-10	-0.3	-10	-0.5	4.7	4.7	US6
KRA752U+	PB	○		-50	-100	200	50	80	-5	-10	-0.3	-10	-0.5	10	10	
KRA753U+	PC	○		-50	-100	200	70	120	-5	-10	-0.3	-10	-0.5	22	22	
KRA754U+	PD	○		-50	-100	200	80	200	-5	-10	-0.3	-10	-0.5	47	47	
KRA755U+	PE	○		-50	-100	200	80	200	-5	-10	-0.3	-10	-0.5	2.2	47	
KRA756U+	PF	○		-50	-100	200	80	200	-5	-10	-0.3	-10	-0.5	4.7	47	
KRA757U+	PH	○		-50	-100	200	80	150	-5	-10	-0.3	-10	-0.5	10	47	
KRA758U+	PI	○		-50	-100	200	80	150	-5	-10	-0.3	-10	-0.5	22	47	
KRA760U+	PK	○			-50	-100	200	120	-	-5	-1	-0.3	-10	-0.5	4.7	
KRA761U+	PM	○	-50		-100	200	120	-	-5	-1	-0.3	-10	-0.5	10	-	
KRA763U+	PO	○	-50		-100	200	120	-	-5	-1	-0.3	-10	-0.5	22	-	
KRA764U+	PP	○	-50		-100	200	120	-	-5	-1	-0.3	-10	-0.5	47	-	
KRA766U+	P2	○		-50	-100	200	33	-	-5	-5	-0.3	-10	-0.5	1	10	
KRA767U+	P4	○		-50	-100	200	20	-	-5	-20	-0.3	-10	-0.5	2.2	2.2	
KRA768U+	P5	○		-50	-100	200	33	-	-5	-10	-0.3	-10	-0.5	2.2	10	
KRA769U+	P6	○		-50	-100	200	30	-	-5	-10	-0.3	-10	-0.5	4.7	10	
KRC851U+	NA	○			50	100	200	30	55	5	10	0.3	10	0.5	4.7	
KRC852U	NB	○	50		100	200	50	80	5	10	0.3	10	0.5	10	10	
KRC853U	NC	○	50		100	200	70	120	5	10	0.3	10	0.5	22	22	
KRC854U	ND	○	50		100	200	80	200	5	10	0.3	10	0.5	47	47	
KRC855U	NE	○	50		100	200	80	200	5	10	0.3	10	0.5	2.2	47	
KRC856U+	NF	○	50		100	200	80	200	5	10	0.3	10	0.5	4.7	47	
KRC857U+	NH	○	50		100	200	80	150	5	10	0.3	10	0.5	10	47	
KRC858U+	NI	○	50		100	200	80	150	5	10	0.3	10	0.5	22	47	
KRC860U	NK	○	50		100	200	120	-	5	1	0.3	10	0.5	4.7	-	
KRC861U+	NM	○	50		100	200	120	-	5	1	0.3	10	0.5	10	-	
KRC863U+	NO	○	50		100	200	120	-	5	1	0.3	10	0.5	22	-	
KRC864U+	NP	○	50		100	200	120	-	5	1	0.3	10	0.5	47	-	
KRC866U+	N2	○	50		100	200	33	-	5	5	0.3	10	0.5	1	10	
KRC867U+	N4	○	50	100	200	20	-	5	20	0.3	10	0.5	2.2	2.2		
KRC868U	N5	○	50	100	200	33	-	5	10	0.3	10	0.5	2.2	10		
KRC869U+	N6	○	50	100	200	30	-	5	10	0.3	10	0.5	4.7	10		

Note) ○ : AEC-Q Qualified
 Note) + : Irregular Production

Complex BRT (NPN+PNP)

BJT

TypeNo.	Mark	AEC-Q	Internal circuit (Top view)	Max. Ratings					G _I								V _{O(ON)} (V)						R1 (kΩ)		R2 (kΩ)		PKG
				V _O (V)		I _O (mA)		P _O (mW)	Min.		Typ.		@V _O (V)		@I _O (mA)		Max.		@I _O (mA)		@I _I (mA)		Q1	Q2	Q1	Q2	
				Q1	Q2	Q1	Q2		Q1	Q2	Q1	Q2	Q1	Q2	Q1	Q2	Q1	Q2	Q1	Q2	Q1	Q2	Q1	Q2	Q1	Q2	
KRX101E	BA	○		50	-50	100	-100	200	50	50	80	80	5	-5	10	-10	0.3	-0.3	10	-10	0.5	-0.5	10	10	10	10	TESV
KRX102E	BM	○		50	-50	100	-100	200	80	80	200	150	5	-5	10	-10	0.3	-0.3	10	-10	0.5	-0.5	47	10	47	47	
KRX103E	BB	○		50	-50	100	-100	200	70	70	120	120	5	-5	10	-10	0.3	-0.3	10	-10	0.5	-0.5	22	22	22	22	
KRX104E	BN	○		50	-50	100	-100	200	80	30	200	-	5	-5	10	-10	0.3	-0.3	10	-10	0.5	-0.5	47	4.7	47	10	
KRX201E	BA	○		50	-50	100	-100	200	50	50	80	80	5	-5	10	-10	0.3	-0.3	10	-10	0.5	-0.5	10	10	10	10	TES6
KRX202E	BB	○		50	-50	100	-100	200	70	70	120	120	5	-5	10	-10	0.3	-0.3	10	-10	0.5	-0.5	22	22	22	22	
KRX203E	BC	○		50	-50	100	-100	200	80	80	200	200	5	-5	10	-10	0.3	-0.3	10	-10	0.5	-0.5	47	47	47	47	
KRX204E	BD	○		50	-50	100	-100	200	80	80	200	200	5	-5	10	-10	0.3	-0.3	10	-10	0.5	-0.5	2.2	2.2	47	47	
KRX206E	BK	○		50	-50	100	-100	200	80	80	150	150	5	-5	10	-10	0.3	-0.3	10	-10	0.5	-0.5	10	10	47	47	
KRX207E+	BF	○		50	-50	100	-100	200	50	80	80	150	5	-5	10	-10	0.3	-0.3	10	-10	0.5	-0.5	10	10	10	47	
KRX208E	BW	○		50	-50	100	-100	200	80	30	200	-	5	-5	10	-10	0.3	-0.3	10	-10	0.5	-0.5	47	4.7	47	10	
KRX209E	BM	○		50	-50	100	-100	200	80	80	200	150	5	-5	10	-10	0.3	-0.3	10	-10	0.5	-0.5	47	10	47	47	
KRX210E	MN	○		-30	50	-500	100	200	140	50	-	80	-5	5	-100	10	-0.3	0.3	-50	10	-2.5	0.5	1	10	10	10	
KRX101U	BA	○			50	-50	100	-100	200	50	50	80	80	5	-5	10	-10	0.3	-0.3	10	-10	0.5	-0.5	10	10	10	
KRX102U	BM	○	50		-50	100	-100	200	80	80	200	150	5	-5	10	-10	0.3	-0.3	10	-10	0.5	-0.5	47	10	47	47	
KRX103U	BB	○	50		-50	100	-100	200	70	70	120	120	5	-5	10	-10	0.3	-0.3	10	-10	0.5	-0.5	22	22	22	22	
KRX201U	BA	○		50	-50	100	-100	200	50	50	80	80	5	-5	10	-10	0.3	-0.3	10	-10	0.5	-0.5	10	10	10	10	US6
KRX202U	BB	○		50	-50	100	-100	200	70	70	120	120	5	-5	10	-10	0.3	-0.3	10	-10	0.5	-0.5	22	22	22	22	
KRX203U	BC	○		50	-50	100	-100	200	80	80	200	200	5	-5	10	-10	0.3	-0.3	10	-10	0.5	-0.5	47	47	47	47	
KRX204U	BD	○		50	-50	100	-100	200	80	80	200	200	5	-5	10	-10	0.3	-0.3	10	-10	0.5	-0.5	2.2	2.2	47	47	
KRX207U+	BT	○		50	-50	100	-100	200	50	80	80	150	5	-5	10	-10	0.3	-0.3	10	-10	0.5	-0.5	10	10	10	47	
KRX208U+	BW	○		50	-50	100	-100	200	80	30	200	-	5	-5	10	-10	0.3	-0.3	10	-10	0.5	-0.5	47	4.7	47	10	
KRX209U+	BM	○		50	-50	100	-100	200	80	80	200	150	5	-5	10	-10	0.3	-0.3	10	-10	0.5	-0.5	47	10	47	47	

Note) ○ : AEC-Q Qualified
 Note) + : Irregular Production

Transistors with Built-in Bias Resistor

High Current BRT

Type No.						Max. Ratings			G _i			V _{O(ON)} (V)			R1 (kΩ)	R2 (kΩ)	PKG
NPN	Mark	AEC-Q	PNP	Mark	AEC-Q	V _O (V)	I _O (mA)	P _D (mW)	Min.	@V _O (V)	@I _O (mA)	Max.	@I _O (mA)	@I _I (mA)			
KRC452+	CB	●	KRA352+	AB	●	12	500	100	39	5	50	0.3	50	2.5	2.2	2.2	USM
KRC453+	CC	●	KRA353+	AC	●	12	500	100	47	5	50	0.3	50	2.5	4.7	4.7	
KRC454+	CD	●	KRA354+	AD	●	12	500	100	56	5	50	0.3	50	2.5	10	10	
KRC456+	CF	●	KRA356+	AF	●	12	500	100	56	5	50	0.3	50	2.5	1	10	
KRC457+	CG	●	KRA357+	AG	●	12	500	100	56	5	50	0.3	50	2.5	2.2	10	
KRC242S+	NR	○	KRA222S	PR	○	50	800	200	39	5	50	0.3	50	2.5	2.2	2.2	SOT-23
KRC243S	NS	○	KRA223S	PS	○	50	800	200	47	5	50	0.3	50	2.5	4.7	4.7	
KRC244S	NT	○	KRA224S	PT	○	50	800	200	56	5	50	0.3	50	2.5	10	10	
KRC245S	NU	○	KRA225S	PU	○	50	800	200	56	5	50	0.3	50	2.5	1	10	
KRC246S	NV	○	KRA226S	PV	○	50	800	200	56	5	50	0.3	50	2.5	2.2	10	
KRC242+	-	●	KRA222	-	●	50	800	625	39	5	50	0.3	50	2.5	2.2	2.2	TO-92
KRC243	-	●	KRA223	-	●	50	800	625	47	5	50	0.3	50	2.5	4.7	4.7	
KRC244	-	●	KRA224	-	●	50	800	625	56	5	50	0.3	50	2.5	10	10	
KRC245	-	●	KRA225	-	●	50	800	625	56	5	50	0.3	50	2.5	1	10	
KRC246	-	●	KRA226	-	●	50	800	625	56	5	50	0.3	50	2.5	2.2	10	

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

Note) + : Irregular Production

Complex High Current BRT

Type No.	Mark	AEC-Q	Internal circuit (Top view)	Max. Ratings			G _i			V _{O(ON)} (V)			R1 (kΩ)	R2 (kΩ)	PKG
				V _O (V)	I _O (mA)	P _D (mW)	Min.	@V _O (V)	@I _O (mA)	Max.	@I _O (mA)	@I _I (mA)			
KRA522T+	PB	○		-50	-800	▲0.9	39	-5	-50	-0.3	-50	-2.5	2.2	2.2	TSV
KRA523T+	PC	○		-50	-800	▲0.9	47	-5	-50	-0.3	-50	-2.5	4.7	4.7	
KRA524T+	PD	○		-50	-800	▲0.9	56	-5	-50	-0.3	-50	-2.5	10	10	
KRA525T+	PE	○		-50	-800	▲0.9	56	-5	-50	-0.3	-50	-2.5	1	10	
KRA526T+	PF	○		-50	-800	▲0.9	56	-5	-50	-0.3	-50	-2.5	2.2	10	
KRC642T+	NB	○		50	800	▲0.9	39	5	50	0.3	50	2.5	2.2	2.2	TSV
KRC643T+	NC	○		50	800	▲0.9	47	5	50	0.3	50	2.5	4.7	4.7	
KRC644T+	ND	○		50	800	▲0.9	56	5	50	0.3	50	2.5	10	10	
KRC645T+	NE	○		50	800	▲0.9	56	5	50	0.3	50	2.5	1	10	
KRC646T+	NF	○		50	800	▲0.9	56	5	50	0.3	50	2.5	2.2	10	
KRA722T+	PB	○		-50	-800	▲0.9	39	-5	-50	-0.3	-50	-2.5	2.2	2.2	TSV
KRA723T+	PC	○		-50	-800	▲0.9	47	-5	-50	-0.3	-50	-2.5	4.7	4.7	
KRA724T+	PD	○		-50	-800	▲0.9	56	-5	-50	-0.3	-50	-2.5	10	10	
KRA725T+	PE	○		-50	-800	▲0.9	56	-5	-50	-0.3	-50	-2.5	1	10	
KRA726T+	PF	○		-50	-800	▲0.9	56	-5	-50	-0.3	-50	-2.5	2.2	10	
KRC841T+	NA	○		50	800	▲0.9	33	5	50	0.3	50	2.5	1	1	TS6
KRC842T+	NB	○		50	800	▲0.9	39	5	50	0.3	50	2.5	2.2	2.2	
KRC843T+	NC	○		50	800	▲0.9	47	5	50	0.3	50	2.5	4.7	4.7	
KRC844T+	ND	○		50	800	▲0.9	56	5	50	0.3	50	2.5	10	10	
KRC845T+	NE	○		50	800	▲0.9	56	5	50	0.3	50	2.5	1	10	
KRC846T+	NF	○	50	800	▲0.9	56	5	50	0.3	50	2.5	2.2	10		

Note) ▲ : Package mounted on a ceramic board (600mm²X0.8mm)

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

Note) + : Irregular Production

■ Audio Muting BRT

TypeNo.	Mark	AEC-Q	Internal circuit (Top view)	Max. Ratings			G _i				V _{O(ON)} (V)			R ₁ (kΩ)	R _{ON} (Ω)	PKG
				V _O (V)	I _O (A)	P _D (mW)	Min.	Max.	@V _O (V)	@I _O (mA)	Max.	@I _O (mA)	@I _I (mA)	Typ.	Typ.	
KRC231S	NW	○		15	600	200	200	800	5	50	0.08	50	2.5	2.2	0.6	SOT-23
KRC232S	NY	○		15	600	200	200	800	5	50	0.08	50	2.5	5.6	0.6	
KRC281S	MQ□	○		20	300	150	350	1200	2	4	0.1	30	3	2.2	1	
KRC231+	-	●		15	600	625	200	800	5	50	0.08	50	2.5	2.2	0.6	TO-92
KRC232+	-	●		15	600	625	200	800	5	50	0.08	50	2.5	5.6	0.6	
KRC281+	-	●		20	300	625	350	1200	2	4	0.1	30	3	2.2	1	

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q
 Note) + : Irregular Production

BJT

USA/European specification models types

■ General Purpose Transistor

TypeNo.	Mark	AEC-Q	Complementary	Mark	Max. Ratings			h _{FE}				V _{CE(sat)} (V)			f _r (MHz)				PKG
					V _{CEO} (V)	I _C (mA)	P _C (W)	Min.	Max.	@V _{CE} (V)	@I _C (mA)	Max.	@I _C (A)	@I _B (mA)	Min.	Typ.	@V _{CE} (V)	@I _C (mA)	
BC857W	3□	○	BC847W	1□	-45	-100	0.1	125	800	-5	-2	-0.65	-0.1	-5	-	150	-5	-10	USM
BC847W	1□	○	BC857W	3□	45	100	0.1	110	800	5	2	0.6	0.1	5	-	300	5	10	
KN3906S	ZAA	○	KN3904S	ZCA	-40	-200	※0.35	60	-	-1	-0.1	-0.4	-0.05	-5	-	250	-20	-10	SOT-23
KN4403S	ZWA	○	KN4401S	ZUA	-40	-600	※0.35	30	-	-1	-0.1	-0.75	-0.5	-50	200	-	-10	-20	
BC857	3□	○	BC847	1□	-45	-100	※0.35	125	800	-5	-2	-0.65	-0.1	-5	-	150	-5	-10	
BC860	4□	○	BC850	2□	-45	-100	※0.35	125	475	-5	-2	-0.65	-0.1	-5	-	150	-5	-10	
BC807	5□	○	BC817	6□	-45	-800	※0.35	100	630	-1	-100	-0.7	-0.5	-50	80	-	5	10	
BC856	3□	○	BC846	1□	-65	-100	※0.35	125	475	-5	-2	-0.65	-0.1	-5	-	150	-5	-10	
MMBTA56	ANX	○	MMBTA06	ADX	-80	-500	※0.35	100	-	-1	-10	-0.25	-0.1	-10	50	-	1	100	
2N5401S	ZE	○	-	-	-150	-600	※0.35	60	240	-5	-10	-0.5	-0.05	-5	100	300	-10	-10	
MMBTA92	YV	○	MMBTA42	AAX	-300	-500	※0.35	40	-	-10	-10	-0.5	-0.02	-2	50	-	-20	-10	
BC848	1□	○	BC858	3□	30	100	※0.35	110	800	5	2	0.6	0.1	5	-	300	5	10	
KN3904S	ZCA	○	KN3906S	ZAA	40	200	※0.35	40	-	1	0.1	0.3	0.05	5	-	300	20	10	
KN4401S	ZUA	○	KN4403S	ZWA	40	600	※0.35	20	-	1	0.1	0.75	0.5	50	250	-	10	20	
BC847	1□	○	BC857	3□	45	100	※0.35	110	800	5	2	0.6	0.1	5	-	300	5	10	
BC850	2□	○	BC860	4□	45	100	※0.35	200	800	5	2	0.6	0.1	5	-	300	5	10	
BC817	6□	○	BC807	5□	45	800	※0.35	100	630	1	100	0.7	0.5	50	100	-	5	10	
BC846	1□	○	BC856	3□	65	100	※0.35	110	450	5	2	0.6	0.1	5	-	300	5	10	
MMBTA06	ADX	○	MMBTA56	ANX	80	500	※0.35	100	-	1	10	0.25	0.1	10	100	-	2	10	
2N5551S	ZF	○	-	-	160	600	※0.35	80	250	5	10	0.2	0.05	5	100	300	10	10	
MMBTA42	AAX	○	MMBTA92	YV	300	500	※0.35	40	-	10	10	0.5	0.02	2	50	-	20	10	
MMBTA44	APX	●	-	-	400	300	※0.35	50	200	10	10	0.5	0.01	1	20	-	10	10	

Note) ※ : Package Mounted on 99.5% Alumina 10x8x0.6mm, □ : h_{FE} Grade

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

General Purpose Transistor

TypeNo.	Mark	AEC-Q	Complementary	Mark	Max. Ratings			h _{FE}				V _{CE(sat)} (V)			f _r (MHz)				PKG
					V _{CEO} (V)	I _c (mA)	P _c (W)	Min.	Max.	@V _{CE} (V)	@I _c (mA)	Max.	@I _c (A)	@I _B (mA)	Min.	Typ.	@V _{CE} (V)	@I _c (mA)	
PXTA44	AP	●	-	-	400	300	▼1	50	200	10	10	0.5	0.01	1	-	-	-	-	SOT-89
BC558	-	●	BC548	-	-30	-100	0.625	110	800	-5	-2	-0.65	-0.1	-5	-	150	-5	-10	TO-92
BC557	-	●	BC547	-	-45	-100	0.625	110	800	-5	-2	-0.65	-0.1	-5	-	150	-5	-10	
BC327	-	●	BC337	-	-45	-800	0.625	100	630	-1	-100	-0.7	-0.5	-50	-	100	-5	-10	
MPS751	-	●	MPS651	-	-60	-1A	0.625	60	200	-2	-50	-0.7	-0.5	-50	-	150	-10	-50	
BC556	-	●	BC546	-	-65	-100	0.625	110	450	-5	-2	-0.65	-0.1	-5	-	150	-5	-10	
2N5401C	-	●	-	-	-150	-600	0.625	60	240	-5	-10	-0.5	-0.05	-5	100	300	-10	-10	
BF423	-	●	BF422	-	-250	-50	0.625	50	-	-20	-25	-0.6	-0.03	-5	60	-	-10	-10	
BF421	-	●	BF420	-	-300	-50	0.625	50	300	-20	-25	-0.6	-0.03	-5	60	-	-10	-10	
MPSA92	-	●	MPSA42	-	-300	-500	0.625	40	-	-10	-10	-0.5	-0.02	-2	50	-	-20	-10	
KN4403	-	●	KN4401	-	-40	-600	0.625	30	-	-1	-0.1	-0.75	-0.5	-50	200	-	-10	-20	
KN2907A	-	●	KN2222A	-	-60	-600	0.625	75	-	-10	-0.1	-1.6	-0.5	-50	200	-	-20	-50	
BC548	-	●	BC558	-	30	100	0.625	110	800	5	2	0.6	0.1	5	-	150	5	10	
BC549	-	●	BC559	-	30	100	0.625	110	800	5	2	0.6	0.1	5	-	300	5	10	
BC547	-	●	BC557	-	45	100	0.625	110	800	5	2	0.6	0.1	5	-	150	5	10	
BC337	-	●	BC327	-	45	800	0.625	100	630	1	100	0.7	0.5	50	-	100	5	10	
KN3904	-	●	KN3906	-	40	200	0.625	40	-	1	0.1	0.3	0.05	5	-	300	20	10	
KN2222A	-	●	KN2907A	-	40	600	0.625	35	-	10	0.1	1	0.5	50	300	-	20	20	
KN4401	-	●	KN4403	-	40	600	0.625	20	-	1	0.1	0.75	0.5	50	250	-	10	20	
MPS651	-	●	MPS751	-	60	1A	0.625	100	320	2	50	0.5	0.5	50	-	150	10	50	
BC546	-	●	BC556	-	65	100	0.625	110	450	5	2	0.6	0.1	5	-	150	5	10	
2N5551	-	●	-	-	160	600	0.625	80	250	5	10	0.2	0.05	5	100	300	10	10	
BF422	-	●	BF423	-	250	50	0.625	50	-	20	25	0.6	0.03	5	60	-	10	10	
BF420	-	●	BF421	-	300	50	0.625	50	-	20	25	0.6	0.03	5	60	-	10	10	
MPSA42	-	●	MPSA92	-	300	500	0.625	40	-	10	10	0.5	0.02	2	50	-	20	10	
MPSA44	-	●	-	-	400	300	0.625	50	200	10	10	0.5	0.01	1	-	-	-	-	

Note) ▼ : Package Mounted on Ceramic Substrate (250mm²X0.8t)

Note) ● : Preparing for qualification of AEC-Q

BJT

USA/European specification models types

General Purpose Transistor

Type No.	AEC-Q	Complementary	Max. Ratings				h _{FE}				V _{CE(sat)} (V)			f _T (MHz)				PKG
			V _{CEO} (V)	I _C (A)	P _C [★] (W)	P _C (W)	Min.	Max.	@V _{CE} (V)	@I _C (mA)	Max.	@I _C (A)	@I _B (mA)	Min.	Typ.	@V _{CE} (V)	@I _C (mA)	
TIP36C	○	TIP35C	-100	-25	-	☆ 125	55	160	-5	-1.5A	-4	-25	-5A	3	-	-5	-1A	TO-3P(N)
TIP35C	○	TIP36C	100	25	-	☆ 125	55	160	5	1.5A	4	25	5A	3	-	5	1A	

Note) ★ : Ta=25°C, ☆ : Tc=25°C

Note) ○ : AEC-Q Qualified

Darlington Transistor

Type No.	Mark	AEC-Q	Complementary	Max. Ratings			h _{FE}			V _{CE(sat)} (V)			f _T (MHz)			PKG
				V _{CES} (V)	I _C (A)	P _C (W)	Min.	@V _{CE} (V)	@I _C (mA)	Max.	@I _C (A)	@I _B (mA)	Min.	@V _{CE} (V)	@I _C (mA)	
MMBTA63	AGX	●	-	-30	-500	※0.35	5000	-5	-10	-1.5	-0.1	-0.1	125	-5	-10	SOT-23
MMBTA517	UA	●	-	△30	400	※0.35	30000	2	100	1	0.1	1	◇220	2	100	
MMBTA13	AIX	●	-	30	500	※0.35	5000	5	10	1.5	0.1	0.1	125	5	10	
BC517	-	●	-	△30	500	0.625	30000	2	100	1	0.1	1	◇220	2	100	TO-92
MJD112	-	●	MJD117	100	2A	☆20	1000	3	2A	2	2	8	25	10	750	DKAK

Note) ※ : Package Mounted on 99.5% Alumina 10x8x0.6mm, △ : V_{CEO}, ◇ : Typ

Note) ● : Preparing for qualification of AEC-Q

■ Switching Transistor

TypeNo.	Mark	AEC-Q	Complementary	Mark	Max. Ratings			h _{FE}			V _{CE(sat)} (V)			f _T (MHz)	t _{on} (ns)	t _{off} (ns)	t _r (ns)	t _{stg} (ns)	t _f (ns)	PKG
					V _{CEO} (V)	I _c (A)	P _c (W)	Max.	@V _{CE} (V)	@I _c (mA)	Max.	@I _c (A)	@I _b (mA)	Min.	Max.	Max.	Max.	Max.	Max.	
KTN2907AU	ZH	○	KTN2222AU	ZG	-60	-600	0.1	300	-10	-150	-1.6	-0.5	-50	200	45	100	40	80	30	USM
KTN2222AU	ZG	○	KTN2907AU	ZH	40	600	0.1	300	10	150	1.0	0.5	50	250	-	-	25	225	60	
2N3906S	ZA	○	2N3904S	ZC	-40	-200	※ 0.35	300	-1	-10	-0.4	-0.05	-5	250	-	-	35	225	75	SOT-23
KTN2907AS	ZH	○	KTN2222AS	ZG	-60	-600	※ 0.35	300	-10	-150	-1.6	-0.5	-50	200	45	100	40	80	30	
2N3904S	ZC	○	2N3906S	ZA	40	200	※ 0.35	300	1	10	0.3	0.05	5	300	-	-	35	200	50	
KTN2222AS	ZG	○	KTN2907AS	ZH	40	600	※ 0.35	300	10	150	1.0	0.5	50	300	-	-	25	225	60	
KN3904	-	●	KN3906	-	40	200	0.625	300	1	10	0.3	0.05	5	300	-	-	-	-	-	TO-92
KTN2907A	-	●	KTN2222A	-	-60	-600	0.625	300	-10	-150	-1.6	-0.5	-50	200	45	100	40	80	30	
KTN2222A	-	●	KTN2907A	-	40	600	0.625	300	10	150	1.0	0.5	50	300	-	-	25	225	60	
MJE13003	-	●	-	-	400	1.5A	★ 20	38	2	500	3.0	1.5	500	4	1.1us	-	-	4us	700	TO-126
MJE13005DF	-	●	-	-	400	5A	★ 30	35	5	1A	1.0	4	1A	4	150	-	-	5us	800	TO-220IS
MJE13007F	-	●	-	-	400	8A	★ 40	39	5	2A	2.0	5	1A	4	1.6us	-	-	3us	700	

Note) ※ : Package Mounted on 99.5% Alumina 10x8x0.6mm, ★ : T_c=25°C

Note) ● : Preparing for qualification of AEC-Q

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
2N3904TA	ONSEMI	2N3904	2SA1386-Y	SANKEN	KTA1962A	2SA2097	TOSHIBA	KTA1385D-Y
2N4401TA	ONSEMI	KN4401	2SA1412-Z	NEC	KTA1862D-Y	2SA2151	SANKEN	KTA1962A
2N4403TA	ONSEMI	KN4403	2SA1413-Z	RENESAS	KTA1807D-Y	2SA2154MFV-GR	TOSHIBA	KTA2014V-GR
2N5210	ONSEMI	KTC945B	2SA1576A	ROHM	KTA2014	2SA2166	ISAHAYA	KN2907AS
2N5210	ONSEMI	KTC945B	2SA1576U3	ROHM	KTA2014	2SA2184	TOSHIBA	KTA1807D-Y
2N5401	AUK	2N5401	2SA1576U3HZG	ROHM	KTA2014	2SA2188-F	ISAHAYA	KTA1531T-GR
2PA1576R	NEXPERIA	KTA2014-GR	2SA1576U3-R	ROHM	KTA2014	2SA2206	TOSHIBA	KTB1260
2PA1576S	NEXPERIA	KTA2014-GR	2SA1576UB	ROHM	KTA2014	2SA673-C	NEC	KTA200-Y
2PB709ART	NEXPERIA	BC857-B	2SA1576UBHZG	ROHM	KTA2014	2SA812	RENESAS	KTA1504S
2PB710ARL	NEXPERIA	KTN2907AS	2SA1577	ROHM	KTA2015	2SA812A	NEC	KTA1504S-Y
2PB710ASL	NEXPERIA	KTN2907AS	2SA1586	TOSHIBA	KTA2014	2SAR293P5	ROHM	KTA1664-Y
2PC4081R	NEXPERIA	KTC4075-GR	2SA1588	TOSHIBA	KTA2015	2SAR502UB	ROHM	KTA2015-Y
2PC4081S	NEXPERIA	KTC4075-BL	2SA1611	RENESAS	KTA2014-GR	2SAR512R	ROHM	KTA1544T
2PD601ASL	NEXPERIA	KTC3875S-GR	2SA1668	SANKEN	KTB1369-Y	2SAR513P	ROHM	KTA1668
2PD602ARL	NEXPERIA	BC817	2SA1673	SANKEN	KTA1695A	2SAR513P5	ROHM	KTA1668
2SA1015-GR	TOSHIBA	KTA1266-GR	2SA1694	SANKEN	KTB688	2SAR513PFRA	ROHM	KTA1668
2SA1020-Y	TOSHIBA	KTA1281-Y	2SA1695	SANKEN	KTA1695A	2SAR513PHZG	ROHM	KTA1668
2SA1036K	ROHM	KTA1505S	2SA1721-O	TOSHIBA	MMBTA92	2SAR513R	ROHM	KTA1551T
2SA1036K-R	ROHM	KTA1505S-GR	2SA1725	SANKEN	KTA1725-O	2SAR514P	ROHM	KTB1260-Y
2SA1037AK	ROHM	KTA1504S-GR	2SA1736	TOSHIBA	KTB1124-B	2SAR514P5	ROHM	KTB1260-Y
2SA1037AKFRA	ROHM	KTA1504S-Y	2SA1774	ROHM	KTA2014E	2SAR523EB	ROHM	KTA2014E
2SA1037AK	ROHM	KTA1504S	2SA1774EB	ROHM	KTA2014E	2SAR523M	ROHM	KTA2014V-GR
2SA1162	TOSHIBA	KTA1504S	2SA1774EBHZG	ROHM	KTA2014E	2SAR523UB	ROHM	KTA2014
2SA1182-Y	TOSHIBA	KTA1505S-Y	2SA1774-R	ROHM	KTA2014E-GR	2SAR533P	ROHM	KTB1124
2SA1186	SANKEN	KTA1695A	2SA1797	ROHM	KTB1124	2SAR543R	ROHM	KTA1552T
2SA1201-Y	TOSHIBA	KTA1661-Y	2SA1832-GR	TOSHIBA	KTA2014E-GR	2SAR544P5	ROHM	KTB1260-Y
2SA1213-Y	TOSHIBA	KTA1666-Y	2SA1859A	SANKEN	KTB1369	2SAR553P	ROHM	KTA1666-Y
2SA1235A	ISAHAYA	KTC9015S	2SA1952	ROHM	KTA1385D-Y	2SAR553P5	ROHM	KTA1666-Y
2SA1241-Y	TOSHIBA	KTA1718D-Y	2SA1972	TOSHIBA	KTA1277	2SAR573D3	ROHM	KTA1718D
2SA1298-Y	TOSHIBA	KTA1298-Y	2SA2018	ROHM	KTC4072E	2SB1124-T	ONSEMI	KTB1124-C
2SA1303	SANKEN	KTA1962A	2SA2029	ROHM	KTA2014V	2SB1132	ROHM	KTA1663-Y
2SA1313-Y	TOSHIBA	KTN2907AS	2SA2056	TOSHIBA	KTA1552T	2SB1182	ROHM	KTA1718D-Y
2SA1330	NEC	MMBTA92	2SA2060	TOSHIBA	KTA1666-Y	2SB1184	ROHM	KTA1040D-Y
2SA1362-Y	TOSHIBA	KTA1298-Y	2SA2065	TOSHIBA	KTA1532T	2SB1188	ROHM	KTA1666
2SA1364-D	ISAHAYA	KTA1668-Y	2SA2070	TOSHIBA	KTA1666-Y	2SB1197K	ROHM	KTA1298-Y
2SA1364-E	ISAHAYA	KTA1668-Y	2SA2071-Q	ROHM	KTB1124	2SB1198K	ROHM	MMBTA56
2SA1365	ISAHAYA	KTA1531T-GR	2SA2088	ROHM	KTN2907AU	2SB1202-S	ONSEMI	KTA1040D-Y
2SA1365-F	ISAHAYA	KTA1531T-GR	2SA2088FRA-Q	ROHM	KTN2907AU	2SB1260	ROHM	KTB1260-Y
2SA1365-G	ISAHAYA	KTA1531T-GR	2SA2088U3HZG	ROHM	KTN2907AU	2SB1261	NEC	KTA1040D-Y
2SA1385-Z	NEC	KTA1385D-Y	2SA2090-Q	ROHM	KN2907AS	2SB1424-R	ROHM	KTA1001-Y

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
2SB1560	SANKEN	KTB2530	2SC4081	ROHM	KTC4075	2SC5949	TOSHIBA	KTC5200A-O
2SB1689	ROHM	KTA1532U	2SC4081U3	ROHM	KTC4075-Y	2SC6011	SANKEN	KTC5242A
2SB1698	ROHM	KTA1663-Y	2SC4081UB	ROHM	KTC4075	2SC6026MFV-GR	TOSHIBA	KTC4075V-GR
2SB1708	ROHM	KTA1542T	2SC4097	ROHM	KTC4076-Y	2SC6046	ROHM	KN2222AS
2SB1709	ROHM	KTA1532T	2SC4116	TOSHIBA	KTC4075	2SC6120	ISAHAYA	KTN2222AU
2SB1710	ROHM	KTA1544T	2SC4154	ISAHAYA	KTC4075	2SC6126	TOSHIBA	KTD1624-C
2SB624	NEC	KTA1298	2SC4155A	ISAHAYA	KTC407	2SCR293P	ROHM	KTC4375-Y
2SB647	RENESAS	KTB1241	2SC4177	NEC	KTC4075-Y	2SCR293P5	ROHM	KTC4375-Y
2SB709A	PANASONIC	BC857-B	2SC4382	SANKEN	KTD2061	2SCR512PHZG	ROHM	KTC4375
2SB798	NEC	KTA1663	2SC4388	SANKEN	KTC4468A	2SCR513P	ROHM	KTC4378-Y
2SB800-FL	NEC	KTA1662-Y	2SC4467	SANKEN	KTD718	2SCR513P5	ROHM	KTC4378-Y
2SB804	NEC	KTB1260	2SC4468	SANKEN	KTC4468A	2SCR513PFRA	ROHM	KTC4378-Y
2SB852K	ROHM	MMBTA63	2SC4505	ROHM	PXTA44	2SCR513R	ROHM	KTC3551T
2SC1214-C	RENESAS	KTC200-Y	2SC4617	ROHM	KTC4075E	2SCR514P	ROHM	KTD1898-Y
2SC1623	NEC	KTC3875S	2SC4617EB	ROHM	KTC4075E	2SCR514P5	ROHM	KTD1898-Y
2SC1815-GR	TOSHIBA	KTC3198-GR	2SC4617FRA	ROHM	KTC4075E	2SCR514PFRA	ROHM	KTD1898-Y
2SC1815-Y	TOSHIBA	KTC3198-Y	2SC4672	ROHM	KTD1624-B	2SCR514PHZG	ROHM	KTD1898
2SC2383-Y	TOSHIBA	KTC3228-Y	2SC4738-GR	TOSHIBA	KTC4075E-GR	2SCR523EB	ROHM	KTC4075E
2SC2411K	ROHM	KTC3876S	2SC4883A	SANKEN	KTD2061	2SCR523M	ROHM	KTC4075V
2SC2411K-R	ROHM	KTC3876S-GR	2SC5053	ROHM	KTC4378-Y	2SCR523UB	ROHM	KTC4075
2SC2412K	ROHM	KTC3875S-GR	2SC5103	ROHM	KTC5103D	2SCR533P	ROHM	KTD1624
2SC2618-C	RENESAS	KTC3876S-Y	2SC5200-O	TOSHIBA	KTC5200-O	2SCR543R	ROHM	KTC3552T
2SC2655	TOSHIBA	KTC3209	2SC5209-H	ISAHAYA	KTD1003-A	2SCR553P	ROHM	KTC4379-Y
2SC2712	TOSHIBA	KTC3875S	2SC5209-J	ISAHAYA	KTD1003-A	2SCR553P5	ROHM	KTC4379-Y
2SC2837	SANKEN	KTC4468A	2SC5344-Y	AUK	KTC3203-Y	2SCR554P	ROHM	KTD1898
2SC2873	TOSHIBA	KTC4379-Y	2SC5383	ISAHAYA	KTC4075E	2SCR554PHZG	ROHM	KTD1898
2SC2881-Y	TOSHIBA	KTC4373-Y	2SC5395	ISAHAYA	KTC3198	2SD1000-LK	NEC	KTC4378-GR
2SC3052	ISAHAYA	KTC3875S	2SC5482	ISAHAYA	KTC1008	2SD1005-BU	RENESAS	KTD1898-Y
2SC3265-Y	TOSHIBA	KTC3265-Y	2SC5482-E	ISAHAYA	KTC1008-GR	2SD1484K	ROHM	MMBTA06
2SC3284	SANKEN	KTC5242A	2SC5585	ROHM	KTC4072E	2SD1664	ROHM	KTC4375
2SC3311A	PANASONIC	KTC3198-GR	2SC5625	ISAHAYA	KTC3207T	2SD1733	ROHM	KTC2025D
2SC3325-Y	TOSHIBA	MMBTA06	2SC5658	ROHM	KTC4075V-GR	2SD1766	ROHM	KTC4379
2SC3326	TOSHIBA	KTC2875AS	2SC5663	ROHM	KTC4072V	2SD1781K	ROHM	KTC3265-Y
2SC3326-B	TOSHIBA	KTC2875-B	2SC5692	TOSHIBA	KTC3552T	2SD1782K	ROHM	MMBTA06
2SC3444	ISAHAYA	KTC4378-Y	2SC5712	TOSHIBA	KTD1624	2SD1802	ONSEMI	KTC2020D
2SC3518-Z	NEC	KTC5103D	2SC5810	TOSHIBA	KTD1003-A	2SD1819A-R/S	ROHM	KTC4075-GR
2SC3519-Y	SANKEN	KTC5242A	2SC5814-R	ISAHAYA	BC846-B	2SD1834	ROHM	KTD1003-B
2SC3617	NEC	KTD1003	2SC5825-R	ROHM	KTC2825D	2SD1898	ROHM	KTD1898
2SC3648-S/T	ONSEMI	KTC4380	2SC5866-Q	ROHM	KTC3552T	2SD1899-Z	RENESAS	KTC2020D
2SC3928A	ISAHAYA	KTC3875S-Y	2SC5866-R	ROHM	KTC3552T	2SD1949	ROHM	KTN2222AU

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
2SD1950	NEC	KTD1003	BC817W	NEXPERIA	KTN2222AU	BC847S	INFINEON	KTC801U
2SD1980	ROHM	MJD112	BC818-40LT1G	ONSEMI	KTC3876S-GR	BC848-B	NEXPERIA	BC848-B
2SD2012	TOSHIBA	KTD2058	BC846	NEXPERIA	BC846	BC849-C	NEXPERIA	BC848-C
2SD2118-R	ROHM	KTC3072D-Y	BC846ALT1G	ONSEMI	BC846-B	BC850C	NEXPERIA	BC850-C
2SD2143	ROHM	MJD112	BC846AQ	DIODES	BC846-B	BC850CW	NEXPERIA	BC847W-C
2SD2162	NEC	KTD1413	BC846B	DIODES	BC846-B	BC856	NEXPERIA	BC856
2SD2167	ROHM	KTC4375	BC846B	SEMTECH	BC846-B	BC856ALT1G	ONSEMI	BC856-B
2SD2351-W	ROHM	KTC4666-B	BC846-B	NEXPERIA	BC846-B	BC856AQ-7-F	DIODES	BC856-B
2SD2390	SANKEN	KTD1530	BC846BDW1T1G	ONSEMI	KTC801U-GR	BC856B	NEXPERIA	BC856-B
2SD2394-E	ROHM	KTC2026-Y	BC846BLT1G	ONSEMI	BC846-B	BC856-B	NEXPERIA	BC856-B
2SD2657K	ROHM	KTC3544T	BC846BPN	NEXPERIA	KTX101U-GR	BC856BQ	DIODES	BC856-B
2SD2675	ROHM	KTC3544T	BC846B-Q	NEXPERIA	BC846-B	BC856BS	NEXPERIA	KTA701U
2SD2704K	ROHM	KTC2875-B	BC846BS	NEXPERIA	KTC801U-GR	BC856BW	NEXPERIA	KTA2014-GR
2SD596	NEC	KTC3265-Y	BC846BW	NEXPERIA	KTC4075-GR	BC856BWT1G	ONSEMI	KTA2014-GR
2SD882	NEC	KTD882	BC846BWT1G	ONSEMI	KTC4075-GR	BC857	NEXPERIA	BC857
2STN2540	STMICRO	KTA1545W	BC846S	NEXPERIA	KTC801U-Y	BC857AW	DIODES	BC857W-B
2STN2540	STMICRO	KTA1545W	BC846W	NEXPERIA	KTC4075-Y	BC857B	DIODES	BC857-B
ACX114EUQ	DIODES	KRX201U	BC847	NEXPERIA	BC847	BC857B	INFINEON	BC857-B
ADTC114ECAQ	DIODES	KRC102S	BC847A	INFINEON	BC847-B	BC857B	NEXPERIA	BC857-B
BC327	NEXPERIA	BC327	BC847A	NEXPERIA	BC847-B	BC857BDW1T1G	ONSEMI	KTA701U-GR
BC327-25	ONSEMI	BC327-25	BC847AWT1G	ONSEMI	BC847W-C	BC857BHZG	ROHM	BC857-B
BC327-40	ONSEMI	BC327-40	BC847B	NEXPERIA	BC847-B	BC857BLT1G	ONSEMI	BC857-B
BC337-25	ONSEMI	BC337-25	BC847B	VISHAY	BC847-B	BC857BS	NEXPERIA	KTA701U-GR
BC337-40	ONSEMI	BC337-40	BC847-B	NEXPERIA	BC847-B	BC857BW	DIODES	BC857W-B
BC546B	ONSEMI	BC546-B	BC847B-7-F	DIODES	BC847-B	BC857C	NEXPERIA	BC857-C
BC556B	ONSEMI	BC556-B	BC847BDW1T1G	ONSEMI	KTC801U-GR	BC857CW-Q	NEXPERIA	BC857W-B
BC637	ONSEMI	KTC1008	BC847BPDW1T3G	ONSEMI	KTX101U	BC858-B	NEXPERIA	BC857-B
BC807	DIODES	BC807	BC847BPN	NEXPERIA	KTX101U-GR	BC859B	NEXPERIA	BC857-B
BC807	NEXPERIA	BC807	BC847BS	NEXPERIA	KTC801U-GR	BC860B	INFINEON	BC860-B
BC807	ONSEMI	BC807	BC847BTT1G	ONSEMI	BC847-B	BC860CW	NEXPERIA	BC857W-B
BC807W	NEXPERIA	KTN2907AU	BC847BVN	NEXPERIA	KTX101E-Y	BCM846BS	NEXPERIA	KTC801U-GR
BC807W	ONSEMI	KTN2907AU	BC847BW	DIODES	BC847W-B	BCM847BS	DIODES	KTC801U
BC808	VISHAY	KTA1505S	BC847BW	NEXPERIA	BC847W-B	BCM847BV	NEXPERIA	KTC801E-GR
BC817	DIODES	BC817	BC847-C	NEXPERIA	BC847-C	BCM857BS	NEXPERIA	KTA701U
BC817	NEXPERIA	BC817	BC847CDW1T1G	ONSEMI	KTC801U-GR	BCR135	INFINEON	KRC107S
BC817	ONSEMI	BC817	BC847CLT1G	ONSEMI	BC847-C	BCR533	INFINEON	KRC244S
BC817-40W	NEXPERIA	KTN2222AU	BC847C-Q	NEXPERIA	BC847-C	BCR555	INFINEON	KRA226S
BC817DPN	NEXPERIA	KTX111T	BC847CW	NEXPERIA	BC847W-C	BCR562	INFINEON	KRA223S
BC817K-40	INFINEON	BC817-40	BC847PN	DIODES	KTX101U-GR	BCR583	INFINEON	KRA224S
BC817KH-Q	NEXPERIA	BC817	BC847PN	INFINEON	KTX101U-GR	BCV26	INFINEON	MMBTA63

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
BCV71	NEXPERIA	BC846-B	DSS5220TQ-7	DIODES	KTA1532T	DTA143ZUA	ROHM	KRA306
BCW30	NEXPERIA	KTA1504S-GR	DTA014EEB	ROHM	KRA302E	DTA144EK	ROHM	KRA104S
BCW32	NEXPERIA	KTC3875S-GR	DTA014EM	ROHM	KRA302V	DTA144EKA	ROHM	KRA104S
BCW66GLT1G	ONSEMI	BC817	DTA014EUB	ROHM	KRA302	DTA144EM3T5G	ONSEMI	KRA304V
BCW68GLT1G	ONSEMI	BC807-25	DTA014TM	ROHM	KRA311V	DTA144EUA	ROHM	KRA304
BCX17	ROHM	BC807	DTA014YEB	ROHM	KRA307E	DTA144EUB	ROHM	KRA304
BCX19	ROHM	BC817	DTA023JEB	ROHM	KRA305E	DTB113ZC HZG	ROHM	KRA225S
BCX19HZG	ROHM	BC817	DTA023JUB	ROHM	KRA305	DTB113ZK	ROHM	KRA225S
BCX51-16	NEXPERIA	KTA1666	DTA024EUB	ROHM	KRA303	DTB114EK	ROHM	KRA224S
BCX52-16	NEXPERIA	KTA1668-Y	DTA043EUB	ROHM	KRA301	DTB123ECHZG	ROHM	KRA222S
BCX53	NEXPERIA	KTB1260-Y	DTA043ZEB	ROHM	KRA306E	DTB123YC	ROHM	KRA226S
BCX53-16	DIODES	KTB1260-Y	DTA043ZM	ROHM	KRA306V	DTB143EC	ROHM	KRA223S
BCX54	NEXPERIA	KTC4379	DTA043ZUB	ROHM	KRA306	DTB143EK	ROHM	KRA223S
BCX55	NEXPERIA	KTC4378-Y	DTA113ZKA	ROHM	KRA116S	DTC013ZUB	ROHM	KRC416
BCX56-16	INFINEON	KTD1898-Y	DTA113ZUA	ROHM	KRA316	DTC014EEB	ROHM	KRC402E
BCX56-16	NEXPERIA	KTD1898-Y	DTA114EE	ROHM	KRA302E	DTC014EM	ROHM	KRC402V
BCX5616Q	DIODES	KTD1898-Y	DTA114EET1G	ONSEMI	KRA302E	DTC014EUB	ROHM	KRC402
BSS4130A	ROHM	KTC8050S-D	DTA114EKA	ROHM	KRA102S	DTC014TM	ROHM	KRC411V
BSS5130A	ROHM	KTA1544T	DTA114EM	ROHM	KRA302V	DTC014TUB	ROHM	KRC411
DCX124EU	DIODES	KRX202U	DTA114EU3	ROHM	KRA302	DTC014YEB	ROHM	KRC407E
DDTB123YC	DIODES	KRA226S	DTA114TKA	ROHM	KRA111S	DTC014YM	ROHM	KRC407V
DDTC114ECA	DIODES	KRC102S	DTA114TUA	ROHM	KRA311	DTC014YUB	ROHM	KRC407
DDTC143ZCA	DIODES	KRC106S	DTA114YE	ROHM	KRA307E	DTC023EEB	ROHM	KRC417E
DDTC144EUA	ROHM	KRC404	DTA114YKA	ROHM	KRA107S	DTC023EUB	ROHM	KRC417
DDTD123YC	DIODES	KRC246S	DTA114YUA	ROHM	KRA307	DTC023JEB	ROHM	KRC405E
DMG96403	PANASONIC	KRX203E	DTA114YUB	ROHM	KRA307	DTC023JM	ROHM	KRC405V
DMG96404	PANASONIC	KRX206E	DTA123JKA	ROHM	KRA105S	DTC023JUB	ROHM	KRC405
DRA2114E0L	PANASONIC	KRA102S	DTA123JUA	ROHM	KRA305	DTC023YEB	ROHM	KRC418E
DRA5143E0L	PANASONIC	KRA301	DTA124EE	ROHM	KRA303E	DTC024EEB	ROHM	KRC403E
DRC2123J0L	PANASONIC	KRC105S	DTA124EKA	ROHM	KRA103S	DTC024EUB	ROHM	KRC403
DRC5114E0L	PANASONIC	KRC402	DTA124EUA	ROHM	KRA303	DTC024XM	ROHM	KRC408V
DRC5143E0L	PANASONIC	KRC401	DTA124EUB	ROHM	KRA303	DTC043EEB	ROHM	KRC401E
DRC5144E0L	PANASONIC	KRC405	DTA143EK	ROHM	KRA101S	DTC043EM	ROHM	KRC401V
DSA2001-0	PANASONIC	KTA1504S-GR	DTA143EU3	ROHM	KRA301	DTC043EUB	ROHM	KRC401
DSA5001-0	PANASONIC	KTA2014-GR	DTA143EUA	ROHM	KRA301	DTC043TEB	ROHM	KRC410E
DSA7004-R	PANASONIC	KTA1666-Y	DTA143TKA	ROHM	KRA110S	DTC043TM	ROHM	KRC410V
DSC2001-0	PANASONIC	KTC3875S-GR	DTA143XKA	ROHM	KRA119S	DTC043XUB	ROHM	KRC419
DSC5001-0	PANASONIC	KTC407S-GR	DTA143XUB	ROHM	KRA319	DTC043ZEB	ROHM	KRC406E
DSC7003-R	PANASONIC	KTC4379-Y	DTA143ZKA	ROHM	KRA106S	DTC043ZM	ROHM	KRC406V
DSC7004R0L	PANASONIC	KTC4379-Y	DTA143ZMFHA	ROHM	KRA306V	DTC043ZUB	ROHM	KRC406

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
DTC044EEB	ROHM	KRC404E	DTC143EUA	ROHM	KRC401	EMX1	ROHM	KTC801E
DTC044EM	ROHM	KRC404V	DTC143EUB	ROHM	KRC401	EMX52	ROHM	KTC801E
DTC044EUB	ROHM	KRC404	DTC143TE	ROHM	KRC410E	EMZ1	ROHM	KTX101E-Y
DTC044TEB	ROHM	KRC414E	DTC143TKA	ROHM	KRC110S	EMZ1FHA	ROHM	KTX101E-Y
DTC113ZKA	ROHM	KRC116S	DTC143TUA	ROHM	KRC410	EMZ52	ROHM	KTX101E-Y
DTC113ZU3	ROHM	KRC416	DTC143XCA	ROHM	KRC119S	FCX495	DIODES	KTC4380-Y
DTC114EE	ROHM	KRC402E	DTC143XKA	ROHM	KRC119S	FMMT458	DIODES	MMBTA44
DTC114EEB	ROHM	KRC402E	DTC143XU3	ROHM	KRC419	HN1A01FE-Y	TOSHIBA	KTA701E-GR
DTC114EKA	ROHM	KRC102S	DTC143ZE	ROHM	KRC406E	HN1A01FU-GR	TOSHIBA	KTA701U-GR
DTC114EM	ROHM	KRC402V	DTC143ZEB	ROHM	KRC406E	HN1B04FE-Y	TOSHIBA	KTX101E-Y
DTC114EU3	ROHM	KRC402	DTC143ZKA	ROHM	KRC106S	HN1C01FE-Y	TOSHIBA	KTC801E-Y
DTC114TKA	ROHM	KRC111S	DTC143ZM	ROHM	KRC406V	HN1C01FU-GR	TOSHIBA	KTC801U-GR
DTC114TUA	ROHM	KRC411	DTC143ZM3T5G	ONSEMI	KRC406V	HN2C01FU-Y	TOSHIBA	KTC811U-GR
DTC114YE	ROHM	KRC407E	DTC143ZMFHA	ROHM	KRC406V	IMX25	ROHM	KTC812T
DTC114YEB	ROHM	KRC407E	DTC143ZU3HZG	ROHM	KRC406	INA5001AP1	ISAHAYA	KTA1668-Y
DTC114YKA	ROHM	KRC107S	DTC143ZUA	ROHM	KRC406	INC2002AC1	ISAHAYA	KTC2875
DTC114YMFHA	ROHM	KRC407V	DTC143ZUB	ROHM	KRC406	INC5001AP1	ISAHAYA	KTC4378-Y
DTC114YUA	ROHM	KRC407	DTC144EE	ROHM	KRC404E	INC6001AP1	ISAHAYA	KTC3573
DTC114YUB	ROHM	KRC407	DTC144EEB	ROHM	KRC404E	INC6005AC1	ISAHAYA	MMBTA44
DTC123EE	ROHM	KRC417E	DTC144EKA	ROHM	KRC104S	INC6005AP1	ISAHAYA	PXTA44
DTC123EU3	ROHM	KRC417	DTC144EM	ROHM	KRC404V	ISA1235AC1	ISAHAYA	KTC9015S
DTC123EUA	ROHM	KRC417	DTC144EM3T5G	ONSEMI	KRC404V	ISA1530AC1	ISAHAYA	KTA1504S
DTC123JE	ROHM	KRC405E	DTC144EUA	ROHM	KRC404	ISA1602AM1	ISAHAYA	KTA2014
DTC123JEB	ROHM	KRC405E	DTC144EUB	ROHM	KRC404	ISA1989AU1-R	ISAHAYA	KTA2014E-GR
DTC123JKA	ROHM	KRC105S	DTC144TE	ROHM	KRC414E	ISA2166AM1	ISAHAYA	KTN2907AU
DTC123JUA	ROHM	KRC405	DTC144TUA	ROHM	KRC414	KSA1220A-Y	ONSEMI	KTA1700-Y
DTC123YCA	ROHM	KRC118S	DTC144WCAHZG	ROHM	KRC104S	KSA1381-E	ONSEMI	KTA1381-Y
DTC123YE	ROHM	KRC418E	DTD113ZC	ROHM	KRC245S	KSA708-Y	ONSEMI	KTA708-Y
DTC123YKA	ROHM	KRC118S	DTD113ZK	ROHM	KRC245S	KSA916-Y	FAIRCHILD	KTA1023-Y
DTC123YU3HZG	ROHM	KRC418	DTD114ECHZG	ROHM	KRC244S	KSB1151	ONSEMI	KTB1151
DTC123YUA	ROHM	KRC418	DTD123YK	ROHM	KRC246S	KSC2690A-Y	ONSEMI	KTC2800-Y
DTC124EEB	ROHM	KRC403E	DTD143ECHZG	ROHM	KRC243S	KSC3503-D	ONSEMI	KTC3503-Y
DTC124EKA	ROHM	KRC103S	DTD143EK	ROHM	KRC243S	KSD1616A-Y	ONSEMI	KTC1008-Y
DTC124EM	ROHM	KRC403V	EMD3	ROHM	KRX201E	KSD1691	ONSEMI	KTD1691
DTC124EUA	ROHM	KRC403	EMD3FHA	ROHM	KRX201E	KSD2012	ONSEMI	KTD2058-Y
DTC143EE	ROHM	KRC401E	EMD9	ROHM	KRX206E	KST2222A	ONSEMI	KN2222AS
DTC143EEB	ROHM	KRC401E	EMG5	ROHM	KRC657E	KST2907A	ONSEMI	KN2907AS
DTC143EK	ROHM	KRC101S	EMH10	ROHM	KRC855E	LSCR523EB FS8	ROHM	KTA2014E
DTC143EKA	ROHM	KRC101S	EMH11	ROHM	KRC852E	MBT3904DW1T1G	ONSEMI	KTC801U
DTC143EM	ROHM	KRC401V	EMH9	ROHM	KRC857E	MBT3946DW1T1G	ONSEMI	KTX101U-Y

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
MJD2873-Q	NEXPERIA	KTC2815D-Y	MMBTA42LT1G	ONSEMI	MMBTA42	PBHV8540T	NEXPERIA	MMBTA44
MJD31CT4G	ONSEMI	KTC2022D	MMBTA56	DIODES	MMBTA56	PBRN113ZT	NEXPERIA	KRC245S
MMBT2222A	NEXPERIA	KTN2222AS	MMBTA56LT1G	ONSEMI	MMBTA56	PBSS4032PT	NEXPERIA	KTA1544T
MMBT2222ALT1G	ONSEMI	KTN2222AS	MMBTA92	DIODES	MMBTA92	PBSS4160T	NEXPERIA	KTC3551T
MMBT2222ALT3G	ONSEMI	KTN2222AS	MMBTA92LT1G	ONSEMI	MMBTA92	PBSS4160X	NEXPERIA	KTC4378-Y
MMBT2222LT1G	ONSEMI	KTN2222AS	MMDT3946-7-F	DIODES	KTX101U	PBSS4350T	NEXPERIA	KTC3552T
MMBT2907	ONSEMI	KN4403S	MMDTC114YE-AH	SEMTECH	KRC407E	PBSS4350X	NEXPERIA	KTD1624
MMBT2907A	DIODES	KTN2907AS	MMST2907A	DIODES	KTN2907AU	PBSS5140T	NEXPERIA	KTA1551T
MMBT2907ALT1G	ONSEMI	KTN2907AS	MMST3904	DIODES	KTN2222AU	PBSS5160T	NEXPERIA	KTA1551T
MMBT3904	SEMTECH	2N3904S	MMUN2114LT3G	ONSEMI	KRC107S	PBSS5350T	NEXPERIA	KTA1552T
MMBT3904	DIODES	2N3904S	MMUN2115LT1G	ONSEMI	KRC111S	PBSS5540Z	NEXPERIA	KTA1545W
MMBT3904	NEXPERIA	2N3904S	MMUN2211LT1G	ONSEMI	KRC102S	PDTA114ET	NEXPERIA	KRA102S
MMBT3904LT1G	ONSEMI	2N3904S	MMUN2211LT3G	ONSEMI	KRC102S	PDTA114EU	NEXPERIA	KRA302
MMBT3904Q	DIODES	2N3904S	MMUN2213LT1G	ONSEMI	KRC104S	PDTA114YT	NEXPERIA	KRA107S
MMBT3904TT1G	ONSEMI	KTC4075E	MMUN2214LT1G	ONSEMI	KRC107S	PDTA114YU	NEXPERIA	KRA307
MMBT3906	SEMTECH	2N3906S	MPS751	ONSEMI	MPS751-Y	PDTA123ET	NEXPERIA	KRA117S
MMBT3906	NEXPERIA	2N3906S	MUN2233T1G	ONSEMI	KRC106S	PDTA123JT	NEXPERIA	KRC105S
MMBT3906LT1G	ONSEMI	2N3906S	MUN5111G	ONSEMI	KRA302	PDTA123JU	NEXPERIA	KRA305
MMBT3906Q	DIODES	2N3906S	MUN5132	ONSEMI	KRA301	PDTA124ET	NEXPERIA	KRA103S
MMBT3906TT1G	ONSEMI	KTA2014E-GR	MUN5211	ONSEMI	KRC402	PDTA143ET	NEXPERIA	KRA101S
MMBT3906WT1G	ONSEMI	2N3906U	MUN5235	ONSEMI	KRC405	PDTA143EU	NEXPERIA	KRA301
MMBT4401	DIODES	KN4401S	MUN5311DW1T1G	ONSEMI	KRX201U	PDTA143TK	NEXPERIA	KRA110S
MMBT4401LT1G	ONSEMI	KN4401S	NHDTC143ZU	NEXPERIA	KRC406	PDTA143ZT	NEXPERIA	KRA106S
MMBT4403	DIODES	KN4403S	NJD2873T4G	ONSEMI	KTC2815D	PDTA143ZU	NEXPERIA	KRA306
MMBT4403LT1G	ONSEMI	KN4403S	NJVMJD112T4G	ONSEMI	MJD112	PDTA144ET	NEXPERIA	KRA104S
MMBT5210	ONSEMI	KTC9014S-C	NJVJND2873T4G	ONSEMI	KTC2815D	PDTA144EU	NEXPERIA	KRA304
MMBT5401	ONSEMI	2N5401S	NSBC114YPDXV6	ONSEMI	KRX206E	PDTB114ET	NEXPERIA	KRA102S
MMBT5401	DIODES	2N5401S	NSS20200LT1G	ONSEMI	KTA1536T	PDTB123YT	NEXPERIA	KRA226S
MMBT5401LT1G	ONSEMI	2N5401S	NSV2SA2029M3T5G	ONSEMI	KTA2014V-GR	PDTC114EK	NEXPERIA	KRA102S
MMBT5550	ONSEMI	2N5551S	NSV40200LT1G	ONSEMI	KTA1552T	PDTC114ET	NEXPERIA	KRC102S
MMBT5550LT1G	ONSEMI	2N5551S	NSVBC817-40WT1G	ONSEMI	KTN2222AU	PDTC114EU	NEXPERIA	KRC402
MMBT5551	DIODES	2N5551S	NSVBC857CWT1G	ONSEMI	BC857W-B	PDTC114YT	NEXPERIA	KRC107S
MMBT5551LT1G	ONSEMI	2N5551S	NSVDTA143ZET1G	ONSEMI	KRA306E	PDTC114YU	NEXPERIA	KRC407
MMBT6427LT1G	ONSEMI	MMBTA13	NSVMMUN2112LT1G	ONSEMI	KRC103S	PDTC123JT	NEXPERIA	KRC105S
MMBT6428LT1G	ONSEMI	KTC3875S-GR	NSVMMUN2133LT1G	ONSEMI	KRA106S	PDTC123JU	NEXPERIA	KRC405
MMBTA06	DIODES	MMBTA06	NSVMMUN2232LT1G	ONSEMI	KRC101S	PDTC123YU	NEXPERIA	KRC418
MMBTA06	SEMTECH	MMBTA06	NSVMMUN2235LT1G	ONSEMI	KRC105S	PDTC124ET	NEXPERIA	KRC103S
MMBTA06LT1G	ONSEMI	MMBTA06	NSVMUN5211DW1T3G	ONSEMI	KRC852U	PDTC124EU	NEXPERIA	KRC403
MMBTA42	DIODES	MMBTA42	NSVMUN5213DW1T3G	ONSEMI	KRC854U	PDTC124XT	NEXPERIA	KRC108S
MMBTA42	NEXPERIA	MMBTA42	NSVS50030SB3	ONSEMI	KTA1552T	PDTC143ET	NEXPERIA	KRC101S

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
PDTC143EU	NEXPERIA	KRC401	RN1104MFV	TOSHIBA	KRC404V	RN2315	TOSHIBA	KRA318
PDTC143TK	NEXPERIA	KRC110S	RN1105MFV	TOSHIBA	KRC405V	RN2316	TOSHIBA	KRA319
PDTC143TT	NEXPERIA	KRC110S	RN1106	TOSHIBA	KRC406E	RN2401	TOSHIBA	KRA101S
PDTC143TU	NEXPERIA	KRC410	RN1106MFV	TOSHIBA	KRC406V	RN2402	TOSHIBA	KRA102S
PDTC143XT	NEXPERIA	KRC119S	RN1107MFV	TOSHIBA	KRC407V	RN2403	TOSHIBA	KRA103S
PDTC143XU	NEXPERIA	KRC419	RN1108MFV	TOSHIBA	KRC408V	RN2405	TOSHIBA	KRA105S
PDTC143ZT	NEXPERIA	KRC106S	RN1110MFV	TOSHIBA	KRC410V	RN2406	TOSHIBA	KRA106S
PDTC143ZU	NEXPERIA	KRC406E	RN1115	TOSHIBA	KRC418E	RN2426	TOSHIBA	KRA225S
PDTC144ET	NEXPERIA	KRC104S	RN1301	TOSHIBA	KRC401	RN2427	TOSHIBA	KRA226S
PDTC144EU	NEXPERIA	KRC404	RN1302	TOSHIBA	KRC402	RN4902	TOSHIBA	KRX201U
PDTD113ZT	NEXPERIA	KRC245S	RN1303	TOSHIBA	KRC403	RN4903	TOSHIBA	KRX202U
PDTD123YT	NEXPERIA	KRC246S	RN1305	TOSHIBA	KRC405	RN4904	TOSHIBA	KRX203U
PEMD9	NEXPERIA	KRX206E	RN1306	TOSHIBA	KRC406	RN4984FE	TOSHIBA	KRX203E
PMBT2222A	NEXPERIA	KTN2222AS	RN1308	TOSHIBA	KRC408	RN4985	TOSHIBA	KRX204U
PMBT2907A	NEXPERIA	KTN2907AS	RN1315	TOSHIBA	KRC418	RN4985FE	TOSHIBA	KRX204E
PMBT3904	NEXPERIA	2N3904S	RN1316	TOSHIBA	KRC419	RN4987FE	TOSHIBA	KRX206E
PMBT3906	NEXPERIA	2N3906S	RN1401	TOSHIBA	KRC101S	RT1N136C	ISAHAYA	KRC116S
PMBT4401	NEXPERIA	KN4401S	RN1402	TOSHIBA	KRC102S	RT1N141C	ISAHAYA	KRC102S
PMBT4403	NEXPERIA	KN4403S	RN1403	TOSHIBA	KRC103S	RT1N141M	ISAHAYA	KRC402
PMBT5551	NEXPERIA	2N5551S	RN1405	TOSHIBA	KRC105S	RT1N141S	ISAHAYA	KRC102
PMBTA06	NEXPERIA	MMBTA06	RN1406	TOSHIBA	KRC106S	RT1N141U	ISAHAYA	KRC402E
PMBTA42	NEXPERIA	MMBTA42	RN1414	TOSHIBA	KRC116S	RT1N144C	ISAHAYA	KRC107S
PMBTA56	NEXPERIA	MMBTA56	RN1702	TOSHIBA	KRC652U	RT1N148M	ISAHAYA	KRC111S
PMBTA92	NEXPERIA	MMBTA92	RN1705	TOSHIBA	KRC655U	RT1N231M	ISAHAYA	KRC417
PMST2907A	NEXPERIA	KTN2907AU	RN1706	TOSHIBA	KRC656U	RT1N231U	ISAHAYA	KRC417E
PN2222AL	ROHM	KTN2222A	RN1707	TOSHIBA	KRC657U	RT1N234M	ISAHAYA	KRC418
PN2222ATFR	ONSEMI	KTN2222A	RN1902	TOSHIBA	KRC852U	RT1N234U	ISAHAYA	KRC418E
PUMD10	NEXPERIA	KRX204U	RN1902FE	TOSHIBA	KRC852E	RT1N237C	ISAHAYA	KRC105S
PUMD12	NEXPERIA	KRX203U	RN1903	TOSHIBA	KRC853U	RT1N237M	ISAHAYA	KRC405
PUMD2	NEXPERIA	KRX202U	RN1905	TOSHIBA	KRC855U	RT1N237S	ISAHAYA	KRC105
PUMD3	NEXPERIA	KRX201U	RN1907FE	TOSHIBA	KRC857E	RT1N237U	ISAHAYA	KRC405E
PUMH10	NEXPERIA	KRC855U	RN1911FE	TOSHIBA	KRC861E	RT1N241C	ISAHAYA	KRC103S
PUMH11	NEXPERIA	KRC852U	RN2102	TOSHIBA	KRA302E	RT1N241M	ISAHAYA	KRC403
PUMH16	NEXPERIA	KRC855U	RN2102MFV	TOSHIBA	KRA302V	RT1N430U	ISAHAYA	KRC410E
PUMH2	NEXPERIA	KRC854U	RN2104MFV	TOSHIBA	KRA304V	RT1N431C	ISAHAYA	KRC101S
RN1101	TOSHIBA	KRC401E	RN2106MFV	TOSHIBA	KRA306V	RT1N431M	ISAHAYA	KRC401
RN1101MFV	TOSHIBA	KRC401V	RN2110MFV	TOSHIBA	KRA310V	RT1N431S	ISAHAYA	KRC101
RN1102	TOSHIBA	KRC402E	RN2301	TOSHIBA	KRA301	RT1N431U	ISAHAYA	KRC401E
RN1102MFV	TOSHIBA	KRC402V	RN2302	TOSHIBA	KRA302	RT1N432C	ISAHAYA	KRC119S
RN1104	TOSHIBA	KRC404E	RN2303	TOSHIBA	KRA303	RT1N432M	ISAHAYA	KRC419

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
RT1N436C	ISAHAYA	KRA106S	SBC846BWT1G	ONSEMI	KTC4075-GR	SMUN5311DW1T1G	ONSEMI	KRC852U
RT1N436M	ISAHAYA	KRC406	SBC847BDW1T1G	ONSEMI	KTC801U-GR	SMUN5311DW1T3G	ONSEMI	KRX201U
RT1N436U	ISAHAYA	KRC406E	SBC847BLT1G	ONSEMI	BC847-B	SRC1205S	AUK	KRC105S
RT1N441C	ISAHAYA	KRC104S	SBC847BPDW1T3G	ONSEMI	KTX101U	SST2222A	ROHM	KTN2222AS
RT1N441M	ISAHAYA	KRC404	SBC847BWT1G	ONSEMI	BC847W-B	SST3904	ROHM	KN3904S
RT1N441S	ISAHAYA	KRC104	SBC847CLT1G	ONSEMI	BC847-C	SST3906HZG	ROHM	2N3906S
RT1N441U	ISAHAYA	KRC404E	SBC856ALT1G	ONSEMI	BC856-B	SSTA06HZG	ROHM	MMBTA06
RT1N441U	ISAHAYA	KRC404E	SBC857BLT1G	ONSEMI	BC857-B	STD2805T4	STMICRO	KTA1385D-Y
RT1N44BM	ISAHAYA	KRC414	SBT2222A	AUK	KTN2222AS	STN2222A	AUK	KN2222A
RT1P136M	ISAHAYA	KRA316	SBT2907A	AUK	KTN2907AS	TBC847	TOSHIBA	KTC9014S-C
RT1P136U	ISAHAYA	KRA316E	SBT92	AUK	MMBTA92	TBC857	TOSHIBA	KTC9015S-C
RT1P141C	ISAHAYA	KRA102S	SDTC114EET1G	ONSEMI	KRC402E	TMBT3904	TOSHIBA	KN3904S
RT1P141M	ISAHAYA	KRA302	SDTC114YET1G	ONSEMI	KRC407E	TMBT3906	TOSHIBA	KN3906S
RT1P141U	ISAHAYA	KRA302E	SMBT2222A	INFINEON	KTN2222AS	TTA003	TOSHIBA	KTA1041D
RT1P144C	ISAHAYA	KRA107S	SMMBT2222AL	ONSEMI	KTN2222AS	TTC500	TOSHIBA	KTC3551T
RT1P144U	ISAHAYA	KRA307E	SMMBT2222ALT1G	ONSEMI	KTN2222AS	TTD1415B	TOSHIBA	KTD1415
RT1P234M	ISAHAYA	KRA318	SMMBT2907ALT1G	ONSEMI	KTN2907AS	UMD12N	ROHM	KRX203U
RT1P234U	ISAHAYA	KRA318E	SMMBT3904LT1G	ONSEMI	2N3904S	UMD3N	ROHM	KRX201U
RT1P237M	ISAHAYA	KRA305	SMMBT3906LT1G	ONSEMI	2N3906S	UMG11N	ROHM	KRC655U
RT1P241M	ISAHAYA	KRA303	SMMBT4401LT1G	ONSEMI	KN4401S	UMG3N	ROHM	KRC660U
RT1P431C	ISAHAYA	KRA101S	SMMBT5401LT1G	ONSEMI	2N5401S	UMG5N	ROHM	KRC657U
RT1P431M	ISAHAYA	KRA301	SMMBT5551LT1G	ONSEMI	2N5551S	UMG8N	ROHM	KRC656U
RT1P431S	ISAHAYA	KRA101	SMMBTA06LT1G	ONSEMI	MMBTA06	UMH11N	ROHM	KRC852U
RT1P432C	ISAHAYA	KRA119S	SMMBTA06LT3G	ONSEMI	MMBTA06	UMH2N	ROHM	KRC854U
RT1P436M	ISAHAYA	KRA306	SMMBTA42LT1G	ONSEMI	MMBTA42	UMT1N	ROHM	KTA701U
RT1P441C	ISAHAYA	KRA104S	SMMBTA56LT1G	ONSEMI	MMBTA56	UMT2222A	ROHM	KTN2222AU
RT1P441M	ISAHAYA	KRA304	SMMBTA92LT1G	ONSEMI	MMBTA92	UMT2907A	ROHM	KTN2907AU
RT2N03M	ISAHAYA	KRC652U	SMMUN2111LT1G	ONSEMI	KRA102S	UMX1N	ROHM	KTC801U
RT2N12M	ISAHAYA	KRC656U	SMMUN2211LT1G	ONSEMI	KRC102S	UMZ1N	ROHM	KTX101U
RT2N14M	ISAHAYA	KRC657U	SMMUN2211LT3G	ONSEMI	KRC102S	UMZ1NFHA	ROHM	KTX101U
RT3CLLM	ISAHAYA	KTC801U	SMMUN2213LT1G	ONSEMI	KRC104S	ZTX458	DIODES	MPSA44
RT3WLMM	ISAHAYA	KTX101U-GR	SMMUN2214LT1G	ONSEMI	KRC107S			
RT5N136C	ISAHAYA	KRC245S	SMMUN2233LT1G	ONSEMI	KRC106S			
RT5N234C	ISAHAYA	KRC246S	SMSD-602RT1G	ONSEMI	BC817			
SBC807-25LT1G	ONSEMI	BC807-25	SMUN5211DW1T1G	ONSEMI	KRC852U			
SBC807-40WT1G	ONSEMI	KTN2907AU	SMUN5211T1G	ONSEMI	KRC402			
SBC846ALT1G	ONSEMI	BC846-B	SMUN5212T1G	ONSEMI	KRC403			
SBC846BDW1T1G	ONSEMI	KTC801U-GR	SMUN5213T1G	ONSEMI	KRC404			
SBC846BLT1G	ONSEMI	BC846-B	SMUN5214T1G	ONSEMI	KRC407			
SBC846BPDW1T1G	ONSEMI	KTX101U-GR	SMUN5235DW1T1G	ONSEMI	KRC855U			

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Switching Diode

■ Small Signal Switching Diode

Type No.	Mark	AEC-Q	Max. Ratings							V _{F1} (V)		V _{F2} (V)		V _{F3} (V)		I _r (μA)			C _T (pF)			t _{rr} (ns)		PKG
			V _{RM} (V)	V _R (V)	I _{FM} (mA)	I _O (mA)	I _{FSM} (A)	P _D (mW)	Typ.	@I _F (mA)	Typ.	@I _F (mA)	Typ.	Max.	@I _F (mA)	Max.	@V _R (V)	Max.	@V _R (V)	@f (kHz)	Max.	@I _F (mA)		
KDS160UL		PS	○	85	80	300	100	2	100	0.6	1	0.72	10	0.9	1.2	100	0.5	80	3	0	1	4	10	ULP-2
KDS160F		4	○	85	80	300	100	2	100	0.6	1	0.72	10	0.9	1.2	100	0.5	80	3	0	1	4	10	TFSC
KDS160V		UF	○	85	80	300	100	2	100	0.6	1	0.72	10	0.9	1.2	100	0.5	80	3	0	1	4	10	VSC
KDS160E		UF	○	85	80	300	100	2	150	0.6	1	0.72	10	0.9	1.2	100	0.5	80	3	0	1	4	10	ESC
KDS4148E		UC	○	85	80	300	100	2	150	0.6	1	0.72	10	0.9	1.2	100	0.5	80	3	0	1	4	10	
KDS160		UF	○	85	80	300	100	2	200	0.6	1	0.72	10	0.9	1.2	100	0.5	80	3	0	1	4	10	USC
KDS4148U		UH	○	100	75	450	150	2	-	0.6	1	0.72	10	0.9	1.2	100	0.5	75	2	0	1	4	10	
KDS135		JA	○	300	250	300	100	2	200	-	-	-	-	1	1.2	100	0.2	250	3	0	1	100	30	
KDS4148W		WU	○	100	75	450	150	2	-	0.6	1	0.72	10	0.9	1.2	100	0.5	75	2	0	1	4	10	SOD-123
KDS221V		DS	○	20	20	200	100	0.3	100	-	-	-	-	-	1.2	100	0.1	15	-	-	-	-	-	VSM
KDS123V		US	●	80	80	300	100	2	100	-	-	-	-	-	1.2	100	0.1	80	3.5	6	1	-	-	
KDS120V		A3	○	85	80	300	100	2	100	0.61	1	0.74	10	0.92	1.2	100	0.5	80	4	0	1	4	10	
KDS121V		BS	○	85	80	300	100	2	100	0.6	1	0.72	10	0.9	1.2	100	0.5	80	0.9	3	1	4	10	
KDS221E		DS	○	20	20	200	100	0.3	100	-	-	-	-	-	1	10	0.1	15	-	-	-	-	-	ESM
KDS123E		US	○	85	80	300	100	2	100	0.6	1	0.72	10	0.9	1.2	100	0.1	80	3.5	6	1	4	10	
KDS120E		A3	○	85	80	300	100	2	100	0.61	1	0.74	10	0.92	1.2	100	0.5	80	4	0	1	4	10	
KDS121E		B3	○	85	80	300	100	2	100	0.6	1	0.72	10	0.9	1.2	100	0.5	80	3	0	1	4	10	
KDS120		A3	○	85	80	300	100	2	100	0.61	1	0.74	10	0.92	1.2	100	0.5	80	4	0	1	4	10	USM
KDS121		B3	○	85	80	300	100	2	100	0.6	1	0.72	10	0.9	1.2	100	0.5	80	0.9	3	1	4	10	
KDS122		US	○	85	80	300	100	2	100	0.6	1	0.72	10	0.9	1.2	100	0.1	80	3.5	6	1	4	10	
KDS123U		DS	○	80	80	300	100	2	100	-	-	-	-	-	1.2	100	0.1	80	3.5	6	-	-	-	
KDS181		A3	○	85	80	300	100	2	150	0.61	1	0.74	10	0.92	1.2	100	0.5	80	4	0	1	4	10	SOT-23
KDS184		B3	○	85	80	300	100	2	150	0.6	1	0.72	10	0.9	1.2	100	0.5	80	3	0	1	4	10	
KDS187		D3	○	85	80	300	100	2	150	0.61	1	0.74	10	0.92	1.2	100	0.5	80	4	0	1	4	10	
KDS193		F3	○	85	80	300	100	2	150	0.6	1	0.72	10	0.9	1.2	100	0.5	80	3	0	1	4	10	
KDS196		G3	○	85	80	300	100	2	150	0.6	1	0.72	10	0.9	1.2	100	0.5	80	3	0	1	4	10	
KDS226		C3	○	85	80	300	100	2	150	0.6	1	0.72	10	0.9	1.2	100	0.5	80	3	0	1	4	10	
BAV70		H7	○	85	80	-	250	2	300	0.6	1	0.7	10	-	1.25	150	0.5	80	3	0	1	4	10	
BAV99		H8	○	85	80	-	250	2	225	0.6	1	0.72	10	-	1.25	150	0.5	80	3	0	1	4	10	
BAW56		H6	○	85	80	-	250	2	300	0.6	1	0.7	10	-	1.25	150	0.5	80	4	0	1	4	10	
KDS4148S		PJH	○	100	75	450	150	2	350	0.6	1	0.72	10	0.9	-	100	0.5	75	2	0	1	4	10	
KDS135S		JA	●	300	250	300	100	2	150	-	-	-	-	1	1.2	100	0.2	250	3	0	1	100	30	
KDS127E		US	○	80	80	300	100	2	200	-	-	-	-	-	1.2	100	0.1	80	3.5	6	1	-	-	TES6

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

■ Small Signal Band Switching Diode

TypeNo.	Mark	AEC-Q	Max. Ratings		V _F (V)		I _R (μ A)		V _R (V)		C _T (pF)				r _s (Ω)				PKG	
			V _R (V)	I _F (mA)	Max.	@I _F (mA)	Max.	@V _R (V)	Min.	@I _R (μ A)	Typ.	Max.	@V _R (V)	@f(MHz)	Typ.	Max.	@I _F (mA)	@f(MHz)		
KDS114E		UD	○	35	100	0.85	2	0.1	15	35	1	0.7	1.2	6	1	0.5	0.9	2	100	ESC
KDS114		UD	○	35	100	0.85	2	0.1	15	35	1	0.7	1.2	6	1	0.5	0.9	2	100	USC
KDS112E		BF	○	30	50	0.85	2	0.1	15	30	1	0.8	1.2	6	1	0.6	0.9	2	100	ESM
KDS112		BF	○	30	50	0.85	2	0.1	15	30	1	0.8	1.2	6	1	0.6	0.9	2	100	USM
KDS115		R3	○	30	50	0.85	2	0.1	15	30	1	0.8	1.2	6	1	0.6	0.9	2	100	

Note) ○ : AEC-Q Qualified

DIODE

Zener Diode

Zener Voltage	TFSC	VSC	ESC	USC		SOT-23	
							
	0.8*0.6mm	1.0*0.6mm	1.2*0.8mm	1.7*1.25mm		2.93*1.3mm	
	P _D =0.1W	P _D =0.15W	P _D =0.1W	P _D =0.2W		P _D =0.2W	P _D =0.3W
2.0V			KDZ2.0EV	KDZ2.0V		Z02W2.0V	BZX84C2V0
2.2V			KDZ2.2EV	KDZ2.2V		Z02W2.2V	BZX84C2V2
2.4V			KDZ2.4EV	KDZ2.4V		Z02W2.4V	BZX84C2V4
2.7V			KDZ2.7EV	KDZ2.7V		Z02W2.7V	BZX84C2V7
3.0V			KDZ3.0EV	KDZ3.0V		Z02W3.0V	BZX84C3V0
3.3V			KDZ3.3EV	KDZ3.3V		Z02W3.3V	BZX84C3V3
3.6V			KDZ3.6EV	KDZ3.6V		Z02W3.6V	BZX84C3V6
3.9V			KDZ3.9EV	KDZ3.9V		Z02W3.9V	BZX84C3V9
4.3V	KDZ4.3FV	KDZ4.3VV	KDZ4.3EV	KDZ4.3V		Z02W4.3V	BZX84C4V3
4.7V	KDZ4.7FV	KDZ4.7VV	KDZ4.7EV	KDZ4.7V	KDZ4.7VL	Z02W4.7V	BZX84C4V7
5.1V	KDZ5.1FV	KDZ5.1VV	KDZ5.1EV	KDZ5.1V	KDZ5.1VL	Z02W5.1V	BZX84C5V1
5.6V	KDZ5.6FV	KDZ5.6VV	KDZ5.6EV	KDZ5.6V	KDZ5.6VL	Z02W5.6V	BZX84C5V6
6.2V	KDZ6.2FV	KDZ6.2VV	KDZ6.2EV	KDZ6.2V	KDZ6.2VL	Z02W6.2V	BZX84C6V2
6.8V	KDZ6.8FV	KDZ6.8VV	KDZ6.8EV	KDZ6.8V	KDZ6.8VL	Z02W6.8V	BZX84C6V8
7.5V	KDZ7.5FV	KDZ7.5VV	KDZ7.5EV	KDZ7.5V	KDZ7.5VL	Z02W7.5V Z02W7.5VS	BZX84C7V5
8.2V	KDZ8.2FV	KDZ8.2VV	KDZ8.2EV	KDZ8.2V	KDZ8.2VL	Z02W8.2V	BZX84C8V2
9.1V	KDZ9.1FV	KDZ9.1VV	KDZ9.1EV	KDZ9.1V	KDZ9.1VL	Z02W9.1V Z02W9.1VS	BZX84C9V1
10V	KDZ10FV	KDZ10VV	KDZ10EV	KDZ10V	KDZ10VL	Z02W10V	BZX84C10
11V	KDZ11FV	KDZ11VV	KDZ11EV	KDZ11V	KDZ11VL	Z02W11V	BZX84C11
12V	KDZ12FV	KDZ12VV	KDZ12EV	KDZ12V	KDZ12VL	Z02W12V	BZX84C12
13V	KDZ13FV	KDZ13VV	KDZ13EV	KDZ13V	KDZ13VL	Z02W13V	BZX84C13
15V	KDZ15FV	KDZ15VV	KDZ15EV	KDZ15V	KDZ15VL	Z02W15V	BZX84C15
16V	KDZ16FV	KDZ16VV	KDZ16EV	KDZ16V	KDZ16VL	Z02W16V	BZX84C16
18V	KDZ18FV	KDZ18VV	KDZ18EV	KDZ18V	KDZ18VL	Z02W18V	BZX84C18
20V	KDZ20FV	KDZ20VV	KDZ20EV	KDZ20V	KDZ20VL	Z02W20V	BZX84C20
22V	KDZ22FV	KDZ22VV	KDZ22EV	KDZ22V	KDZ22VL	Z02W22V	BZX84C22
24V	KDZ24FV	KDZ24VV	KDZ24EV	KDZ24V	KDZ24VL	Z02W24V	BZX84C24
27V	KDZ27FV	KDZ27VV	KDZ27EV	KDZ27V	KDZ27VL	Z02W27V	BZX84C27
30V	KDZ30FV	KDZ30VV	KDZ30EV	KDZ30V	KDZ30VL	Z02W30V	BZX84C30
33V	KDZ33FV	KDZ33VV	KDZ33EV	KDZ33V	KDZ33VL	Z02W33V	BZX84C33
36V	KDZ36FV	KDZ36VV	KDZ36EV	KDZ36V	KDZ36VL	Z02W36V	BZX84C36
39V					KDZ39VL		

Zener Voltage	SOD-123	SMF	SMA
			
	2.7*1.6mm	2.6*1.6mm	4.5*2.6mm
	P _D =0.5W	P _D =1W	P _D =1W
2.0V	KDZ2.0WV		
2.2V	KDZ2.2WV		
2.4V	KDZ2.4WV		
2.7V	KDZ2.7WV		
3.0V	KDZ3.0WV		
3.3V	KDZ3.3WV		
3.6V	KDZ3.6WV		
3.9V	KDZ3.9WV		
4.3V	KDZ4.3WV	SMFZ4.3V	SMAZ4.3V
4.7V	KDZ4.7WV	SMFZ4.7V	SMAZ4.7V
5.1V	KDZ5.1WV	SMFZ5.1V	SMAZ5.1V
5.6V	KDZ5.6WV	SMFZ5.6V	SMAZ5.6V
6.2V	KDZ6.2WV	SMFZ6.2V	SMAZ6.2V
6.8V	KDZ6.8WV	SMFZ6.8V	SMAZ6.8V
7.5V	KDZ7.5WV	SMFZ7.5V	SMAZ7.5V
8.2V	KDZ8.2WV	SMFZ8.2V	SMAZ8.2V
9.1V	KDZ9.1WV	SMFZ9.1V	SMAZ9.1V
10V	KDZ10WV	SMFZ10V	SMAZ10V
11V	KDZ11WV	SMFZ11V	SMAZ11V
12V	KDZ12WV	SMFZ12V	SMAZ12V
13V	KDZ13WV	SMFZ13V	SMAZ13V
15V	KDZ15WV	SMFZ15V	SMAZ15V
16V	KDZ16WV	SMFZ16V	SMAZ16V
18V	KDZ18WV	SMFZ18V	SMAZ18V
20V	KDZ20WV	SMFZ20V	SMAZ20V
22V	KDZ22WV	SMFZ22V	SMAZ22V
24V	KDZ24WV	SMFZ24V	SMAZ24V
27V	KDZ27WV	SMFZ27V	SMAZ27V
30V	KDZ30WV	SMFZ30V	SMAZ30V
33V	KDZ33WV	SMFZ33V	SMAZ33V
36V	KDZ36WV	SMFZ36V	SMAZ36V

Zener Diode

Zener Voltage	USC	SOT-23	SOD-123
			
	1.7*1.25mm	2.93*1.3mm	2.7*1.6mm
	P _D =0.2W	P _D =0.2W	P _D =0.5W
82V	KDZ82V		
100V	KDZ100V KDZ100VW KDZ100VL	Z02W100V	
110V	KDZ110V		KDZ110WVA
150V	KDZ150V KDZ150VL		KDZ150WVA
160V	KDZ160V		KDZ160WVA
200V	KDZ200V KDZ200VL		KDZ200WVA

■ 100mW Zener Diode

TypeNo.	Grade	Mark	AEC-Q	P _D (mW)	V _Z (V)			Z _Z (Ω)		Z _{ZK} (Ω)		I _R (μA)		PKG
					Min.	Max.	@I _Z (mA)	Max.	@I _Z (mA)	Max.	@I _Z (mA)	Max.	@V _R (V)	
KDZ4.3FV+	Y	4P	○	100	4.17	4.43	5.0	130	5	1000	0.5	5	1	TFSC
KDZ4.7FV+	Y	5P	○		4.55	4.75		130	5	1000		5	1	
KDZ5.1FV+	Y	6P	○		4.98	5.20		70	5	1000		1	1.5	
KDZ5.6FV+	Y	8P	○		5.49	5.73		40	5	900		1	2.5	
KDZ6.2FV+	Y	9P	○		6.06	6.33		30	5	500		1	3	
KDZ6.8FV+	Y	BP	○		6.65	6.93		25	5	150		0.5	5	
KDZ7.5FV+	Y	PP	○		7.28	7.60		23	5	120		0.5	6	
KDZ8.2FV+	Y	DP	○		8.02	8.30		20	5	120		0.5	6.5	
KDZ9.1FV+	Y	EP	○		8.85	9.23		18	5	120		0.5	7	
KDZ10FV+	Y	UP	○		9.77	10.21		15	5	120		0.5	8	
KDZ11FV+	Y	GP	○		10.76	11.22		15	5	120		0.5	8.5	
KDZ12FV	Y	HP	○		11.74	12.24		15	5	110		0.5	9	
KDZ13FV+	Y	JP	○		12.91	13.49		15	5	110		0.5	10	
KDZ15FV+	Y	KP	○		14.34	14.98		15	5	110		0.5	11	
KDZ16FV+	Y	9	○		15.85	16.51		18	5	150		0.5	12	
KDZ18FV+	Y	LP	○		17.56	18.35		20	5	150		0.5	13	
KDZ20FV	Y	MP	○	19.52	20.39	25	5	200	0.5	15				
KDZ22FV+	Y	NP	○	21.54	22.47	30	5	200	0.5	17				
KDZ24FV+	Y	QP	○	23.72	24.78	40	5	200	0.5	19				
KDZ27FV	-	RF	○	26.19	27.53	2.0	150	2	150	0.1	21			
KDZ30FV+	-	SF	○	29.19	30.69		200	2	200	0.1	23			
KDZ33FV+	-	AP	○	32.15	33.79		250	2	250	0.1	25			
KDZ36FV	-	TF	○	35.07	36.87		300	2	300	0.1	27			

Note) ○ : AEC-Q Qualified
 Note) + : Irregular Production

DIODE

Zener Diode

■ 100mW Zener Diode

TypeNo.	Grade	Mark	AEC-Q	P _D (mW)	V _Z (V)			Z _Z (Ω)		Z _{ZK} (Ω)		I _R (μA)		PKG
					Min.	Max.	@I _Z (mA)	Max.	@I _Z (mA)	Max.	@I _Z (mA)	Max.	@V _R (V)	
KDZ4.3VV+	Y	JY	○	100	4.17	4.43	5.0	130	5	1000	0.5	5	1	VSC
KDZ4.7VV+	Y	KY	○		4.55	4.75		130	5	1000		5	1	
KDZ5.1VV+	Y	LY	○		4.98	5.20		70	5	1000		1	1.5	
KDZ5.6VV	Y	MY	○		5.49	5.73		40	5	900		1	2.5	
KDZ6.2VV+	Y	NY	○		6.06	6.33		30	5	500		1	3	
KDZ6.8VV+	Y	PY	○		6.65	6.93		25	5	150		0.5	5	
KDZ7.5VV+	Y	QY	○		7.28	7.60		23	5	120		0.5	6	
KDZ8.2VV+	Y	RY	○		8.02	8.30		20	5	120		0.5	6.5	
KDZ9.1VV+	Y	SY	○		8.85	9.23		18	5	120		0.5	7	
KDZ10VV+	Y	0Y	○		9.77	10.21		15	5	120		0.5	8	
KDZ11VV+	Y	1Y	○		10.76	11.22	15	5	120	0.5	8.5			
KDZ12VV+	Y	2Y	○		11.74	12.24	15	5	110	0.5	9			
KDZ13VV+	Y	3Y	○		12.91	13.49	15	5	110	0.5	10			
KDZ15VV+	Y	5Y	○		14.34	14.98	15	5	110	0.5	11			
KDZ16VV+	Y	6Y	○		15.85	16.51	18	5	150	0.5	12			
KDZ18VV+	Y	8Y	○		17.56	18.35	20	5	150	0.5	13			
KDZ20VV+	Y	4Y	○		19.52	20.39	25	5	200	0.5	15			
KDZ22VV+	Y	7Y	○		21.54	22.47	30	5	200	0.5	17			
KDZ24VV+	Y	9Y	○		23.72	24.78	40	5	200	0.5	19			
KDZ27VV+	-	27	○		26.19	27.53	2.0	150	2.0	150	0.1	21		
KDZ30VV+	-	30	○	29.19	30.69	200		2.0	200	0.1	23			
KDZ33VV+	-	33	○	32.15	33.79	250		2.0	250	0.1	25			
KDZ36VV+	-	36	○	35.07	36.87	300		2.0	300	0.1	27			

Note) ○ : AEC-Q Qualified
 Note) + : Irregular Production

■ 150mW Zener Diode

Type No.	Grade	Mark	AEC-Q	P _D (mW)	V _Z (V)			Z _Z (Ω)		Z _{ZK} (Ω)		I _R (μA)		PKG																																																																																																																																																																																																																																																																																																																																																																																																																																	
					Min.	Max.	@I _Z (mA)	Max.	@I _Z (mA)	Max.	@I _Z (mA)	Max.	@V _R (V)																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ2.0EV	-	2A	○	150	1.85	2.15	5	100	5	1000	0.5	120	1.0	ESC																																																																																																																																																																																																																																																																																																																																																																																																																																	
	Y	2A	○		1.95	2.15									KDZ2.2EV	-	2B	○	2.05	2.38	5	100	5	1000	0.5	120	1.0	Y	2B	○	2.16	2.38	KDZ2.4EV	-	2C	○	2.28	2.60	5	100	5	1000	0.5	120	1.0	Y	2C	○	2.40	2.60	KDZ2.7EV	-	2D	○	2.50	2.90	5	110	5	1000	0.5	120	1.0	Y	2D	○	2.65	2.90	KDZ3.0EV	-	30	○	2.80	3.20	5	120	5	1000	0.5	50	1.0	Y	30	○	2.95	3.20	KDZ3.3EV	-	33	○	3.10	3.50	5	130	5	1000	0.5	20	1.0	Y	33	○	3.25	3.50	KDZ3.6EV	-	36	○	3.40	3.80	5	130	5	1000	0.5	10	1.0	Y	36	○	3.60	3.85	KDZ3.9EV	-	39	○	3.70	4.10	5	130	5	1000	0.5	10	1.0	Y	39	○	3.89	4.16	KDZ4.3EV	Y	43	○	4.17	4.43	5	130	5	1000	0.5	5	1.0	KDZ4.7EV	Y	47	○	4.55	4.70	5	120	5	1000	0.5	5	1.0	KDZ5.1EV	Y	51	○	4.98	5.20	5	70	5	1000	0.5	1	1.5	KDZ5.6EV	Y	56	○	5.49	5.73	5	40	5	900	0.5	1	2.5	KDZ6.2EV	Y	62	○	6.06	6.33	5	30	5	500	0.5	1	3.0	KDZ6.8EV	Y	68	○	6.65	6.93	5	25	5	150	0.5	0.5	5.0	KDZ7.5EV	Y	75	○	7.28	7.60	5	23	5	120	0.5	0.5	6.0	KDZ8.2EV	Y	82	○	8.02	8.36	5	20	5	120	0.5	0.5	6.5	KDZ9.1EV	Y	91	○	8.85	9.23	5	18	5	120	0.5	0.5	7.0	KDZ10EV+	Y	10	○	9.77	10.21	5	15	5	120	0.5	0.5	8.0	KDZ11EV+	Y	11	○	10.76	11.22	5	15	5	120	0.5	0.5	8.5	KDZ12EV	Y	12	○	11.74	12.24	5	15	5	110	0.5	0.5	9.0	KDZ13EV+	Y	13	○	12.91	13.49	5	15	5	110	0.5	0.5	10.0	KDZ15EV	Y	15	○	14.34	14.98	5	15	5	110	0.5	0.5	11.0	KDZ16EV+	Y	16	○	15.85	16.51	5	18	5	150	0.5	0.5	12.0	KDZ18EV	Y	18	○	17.56	18.35	5	20	5	150	0.5	0.5	14.0	KDZ20EV	Y	20	○	19.52	20.39	5	25	5	200	0.5	0.5	15.0	KDZ22EV+	Y	22	○	21.54	22.47	5	30	5	200	0.5	0.5	17.0	KDZ24EV	Y	24	○	23.72	24.78	5	40	5	200	0.5	0.5	19.0	KDZ27EV+	-	27	○	26.19	27.53	2	150	2	150	0.5	0.1	21.0	KDZ30EV+	-	A2	○	29.19	30.69	2	200	2	200	0.5	0.1	23.0	KDZ33EV	-	A3	○	32.15	33.79	2	250	2	250	0.5	0.1	25.0	KDZ36EV+	-	A4	○	35.07
KDZ2.2EV	-	2B	○		2.05	2.38	5	100	5	1000	0.5	120	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Y	2B	○		2.16	2.38									KDZ2.4EV	-	2C	○	2.28	2.60	5	100	5	1000	0.5	120	1.0	Y	2C	○	2.40	2.60	KDZ2.7EV	-	2D	○	2.50	2.90	5	110	5	1000	0.5	120	1.0	Y	2D	○	2.65	2.90	KDZ3.0EV	-	30	○	2.80	3.20	5	120	5	1000	0.5	50	1.0	Y	30	○	2.95	3.20	KDZ3.3EV	-	33	○	3.10	3.50	5	130	5	1000	0.5	20	1.0	Y	33	○	3.25	3.50	KDZ3.6EV	-	36	○	3.40	3.80	5	130	5	1000	0.5	10	1.0	Y	36	○	3.60	3.85	KDZ3.9EV	-	39	○	3.70	4.10	5	130	5	1000	0.5	10	1.0	Y	39	○	3.89	4.16	KDZ4.3EV	Y	43	○	4.17	4.43	5	130	5	1000	0.5	5	1.0	KDZ4.7EV	Y	47	○	4.55	4.70	5	120	5	1000	0.5	5	1.0	KDZ5.1EV	Y	51	○	4.98	5.20	5	70	5	1000	0.5	1	1.5	KDZ5.6EV	Y	56	○	5.49	5.73	5	40	5	900	0.5	1	2.5	KDZ6.2EV	Y	62	○	6.06	6.33	5	30	5	500	0.5	1	3.0	KDZ6.8EV	Y	68	○	6.65	6.93	5	25	5	150	0.5	0.5	5.0	KDZ7.5EV	Y	75	○	7.28	7.60	5	23	5	120	0.5	0.5	6.0	KDZ8.2EV	Y	82	○	8.02	8.36	5	20	5	120	0.5	0.5	6.5	KDZ9.1EV	Y	91	○	8.85	9.23	5	18	5	120	0.5	0.5	7.0	KDZ10EV+	Y	10	○	9.77	10.21	5	15	5	120	0.5	0.5	8.0	KDZ11EV+	Y	11	○	10.76	11.22	5	15	5	120	0.5	0.5	8.5	KDZ12EV	Y	12	○	11.74	12.24	5	15	5	110	0.5	0.5	9.0	KDZ13EV+	Y	13	○	12.91	13.49	5	15	5	110	0.5	0.5	10.0	KDZ15EV	Y	15	○	14.34	14.98	5	15	5	110	0.5	0.5	11.0	KDZ16EV+	Y	16	○	15.85	16.51	5	18	5	150	0.5	0.5	12.0	KDZ18EV	Y	18	○	17.56	18.35	5	20	5	150	0.5	0.5	14.0	KDZ20EV	Y	20	○	19.52	20.39	5	25	5	200	0.5	0.5	15.0	KDZ22EV+	Y	22	○	21.54	22.47	5	30	5	200	0.5	0.5	17.0	KDZ24EV	Y	24	○	23.72	24.78	5	40	5	200	0.5	0.5	19.0	KDZ27EV+	-	27	○	26.19	27.53	2	150	2	150	0.5	0.1	21.0	KDZ30EV+	-	A2	○	29.19	30.69	2	200	2	200	0.5	0.1	23.0	KDZ33EV	-	A3	○	32.15	33.79	2	250	2	250	0.5	0.1	25.0	KDZ36EV+	-	A4	○	35.07	36.87	2	300	2	300	0.5	0.1	27.0										
KDZ2.4EV	-	2C	○		2.28	2.60	5	100	5	1000	0.5	120	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Y	2C	○		2.40	2.60									KDZ2.7EV	-	2D	○	2.50	2.90	5	110	5	1000	0.5	120	1.0	Y	2D	○	2.65	2.90	KDZ3.0EV	-	30	○	2.80	3.20	5	120	5	1000	0.5	50	1.0	Y	30	○	2.95	3.20	KDZ3.3EV	-	33	○	3.10	3.50	5	130	5	1000	0.5	20	1.0	Y	33	○	3.25	3.50	KDZ3.6EV	-	36	○	3.40	3.80	5	130	5	1000	0.5	10	1.0	Y	36	○	3.60	3.85	KDZ3.9EV	-	39	○	3.70	4.10	5	130	5	1000	0.5	10	1.0	Y	39	○	3.89	4.16	KDZ4.3EV	Y	43	○	4.17	4.43	5	130	5	1000	0.5	5	1.0	KDZ4.7EV	Y	47	○	4.55	4.70	5	120	5	1000	0.5	5	1.0	KDZ5.1EV	Y	51	○	4.98	5.20	5	70	5	1000	0.5	1	1.5	KDZ5.6EV	Y	56	○	5.49	5.73	5	40	5	900	0.5	1	2.5	KDZ6.2EV	Y	62	○	6.06	6.33	5	30	5	500	0.5	1	3.0	KDZ6.8EV	Y	68	○	6.65	6.93	5	25	5	150	0.5	0.5	5.0	KDZ7.5EV	Y	75	○	7.28	7.60	5	23	5	120	0.5	0.5	6.0	KDZ8.2EV	Y	82	○	8.02	8.36	5	20	5	120	0.5	0.5	6.5	KDZ9.1EV	Y	91	○	8.85	9.23	5	18	5	120	0.5	0.5	7.0	KDZ10EV+	Y	10	○	9.77	10.21	5	15	5	120	0.5	0.5	8.0	KDZ11EV+	Y	11	○	10.76	11.22	5	15	5	120	0.5	0.5	8.5	KDZ12EV	Y	12	○	11.74	12.24	5	15	5	110	0.5	0.5	9.0	KDZ13EV+	Y	13	○	12.91	13.49	5	15	5	110	0.5	0.5	10.0	KDZ15EV	Y	15	○	14.34	14.98	5	15	5	110	0.5	0.5	11.0	KDZ16EV+	Y	16	○	15.85	16.51	5	18	5	150	0.5	0.5	12.0	KDZ18EV	Y	18	○	17.56	18.35	5	20	5	150	0.5	0.5	14.0	KDZ20EV	Y	20	○	19.52	20.39	5	25	5	200	0.5	0.5	15.0	KDZ22EV+	Y	22	○	21.54	22.47	5	30	5	200	0.5	0.5	17.0	KDZ24EV	Y	24	○	23.72	24.78	5	40	5	200	0.5	0.5	19.0	KDZ27EV+	-	27	○	26.19	27.53	2	150	2	150	0.5	0.1	21.0	KDZ30EV+	-	A2	○	29.19	30.69	2	200	2	200	0.5	0.1	23.0	KDZ33EV	-	A3	○	32.15	33.79	2	250	2	250	0.5	0.1	25.0	KDZ36EV+	-	A4	○	35.07	36.87	2	300	2	300	0.5	0.1	27.0																												
KDZ2.7EV	-	2D	○		2.50	2.90	5	110	5	1000	0.5	120	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Y	2D	○		2.65	2.90									KDZ3.0EV	-	30	○	2.80	3.20	5	120	5	1000	0.5	50	1.0	Y	30	○	2.95	3.20	KDZ3.3EV	-	33	○	3.10	3.50	5	130	5	1000	0.5	20	1.0	Y	33	○	3.25	3.50	KDZ3.6EV	-	36	○	3.40	3.80	5	130	5	1000	0.5	10	1.0	Y	36	○	3.60	3.85	KDZ3.9EV	-	39	○	3.70	4.10	5	130	5	1000	0.5	10	1.0	Y	39	○	3.89	4.16	KDZ4.3EV	Y	43	○	4.17	4.43	5	130	5	1000	0.5	5	1.0	KDZ4.7EV	Y	47	○	4.55	4.70	5	120	5	1000	0.5	5	1.0	KDZ5.1EV	Y	51	○	4.98	5.20	5	70	5	1000	0.5	1	1.5	KDZ5.6EV	Y	56	○	5.49	5.73	5	40	5	900	0.5	1	2.5	KDZ6.2EV	Y	62	○	6.06	6.33	5	30	5	500	0.5	1	3.0	KDZ6.8EV	Y	68	○	6.65	6.93	5	25	5	150	0.5	0.5	5.0	KDZ7.5EV	Y	75	○	7.28	7.60	5	23	5	120	0.5	0.5	6.0	KDZ8.2EV	Y	82	○	8.02	8.36	5	20	5	120	0.5	0.5	6.5	KDZ9.1EV	Y	91	○	8.85	9.23	5	18	5	120	0.5	0.5	7.0	KDZ10EV+	Y	10	○	9.77	10.21	5	15	5	120	0.5	0.5	8.0	KDZ11EV+	Y	11	○	10.76	11.22	5	15	5	120	0.5	0.5	8.5	KDZ12EV	Y	12	○	11.74	12.24	5	15	5	110	0.5	0.5	9.0	KDZ13EV+	Y	13	○	12.91	13.49	5	15	5	110	0.5	0.5	10.0	KDZ15EV	Y	15	○	14.34	14.98	5	15	5	110	0.5	0.5	11.0	KDZ16EV+	Y	16	○	15.85	16.51	5	18	5	150	0.5	0.5	12.0	KDZ18EV	Y	18	○	17.56	18.35	5	20	5	150	0.5	0.5	14.0	KDZ20EV	Y	20	○	19.52	20.39	5	25	5	200	0.5	0.5	15.0	KDZ22EV+	Y	22	○	21.54	22.47	5	30	5	200	0.5	0.5	17.0	KDZ24EV	Y	24	○	23.72	24.78	5	40	5	200	0.5	0.5	19.0	KDZ27EV+	-	27	○	26.19	27.53	2	150	2	150	0.5	0.1	21.0	KDZ30EV+	-	A2	○	29.19	30.69	2	200	2	200	0.5	0.1	23.0	KDZ33EV	-	A3	○	32.15	33.79	2	250	2	250	0.5	0.1	25.0	KDZ36EV+	-	A4	○	35.07	36.87	2	300	2	300	0.5	0.1	27.0																																														
KDZ3.0EV	-	30	○		2.80	3.20	5	120	5	1000	0.5	50	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Y	30	○		2.95	3.20									KDZ3.3EV	-	33	○	3.10	3.50	5	130	5	1000	0.5	20	1.0	Y	33	○	3.25	3.50	KDZ3.6EV	-	36	○	3.40	3.80	5	130	5	1000	0.5	10	1.0	Y	36	○	3.60	3.85	KDZ3.9EV	-	39	○	3.70	4.10	5	130	5	1000	0.5	10	1.0	Y	39	○	3.89	4.16	KDZ4.3EV	Y	43	○	4.17	4.43	5	130	5	1000	0.5	5	1.0	KDZ4.7EV	Y	47	○	4.55	4.70	5	120	5	1000	0.5	5	1.0	KDZ5.1EV	Y	51	○	4.98	5.20	5	70	5	1000	0.5	1	1.5	KDZ5.6EV	Y	56	○	5.49	5.73	5	40	5	900	0.5	1	2.5	KDZ6.2EV	Y	62	○	6.06	6.33	5	30	5	500	0.5	1	3.0	KDZ6.8EV	Y	68	○	6.65	6.93	5	25	5	150	0.5	0.5	5.0	KDZ7.5EV	Y	75	○	7.28	7.60	5	23	5	120	0.5	0.5	6.0	KDZ8.2EV	Y	82	○	8.02	8.36	5	20	5	120	0.5	0.5	6.5	KDZ9.1EV	Y	91	○	8.85	9.23	5	18	5	120	0.5	0.5	7.0	KDZ10EV+	Y	10	○	9.77	10.21	5	15	5	120	0.5	0.5	8.0	KDZ11EV+	Y	11	○	10.76	11.22	5	15	5	120	0.5	0.5	8.5	KDZ12EV	Y	12	○	11.74	12.24	5	15	5	110	0.5	0.5	9.0	KDZ13EV+	Y	13	○	12.91	13.49	5	15	5	110	0.5	0.5	10.0	KDZ15EV	Y	15	○	14.34	14.98	5	15	5	110	0.5	0.5	11.0	KDZ16EV+	Y	16	○	15.85	16.51	5	18	5	150	0.5	0.5	12.0	KDZ18EV	Y	18	○	17.56	18.35	5	20	5	150	0.5	0.5	14.0	KDZ20EV	Y	20	○	19.52	20.39	5	25	5	200	0.5	0.5	15.0	KDZ22EV+	Y	22	○	21.54	22.47	5	30	5	200	0.5	0.5	17.0	KDZ24EV	Y	24	○	23.72	24.78	5	40	5	200	0.5	0.5	19.0	KDZ27EV+	-	27	○	26.19	27.53	2	150	2	150	0.5	0.1	21.0	KDZ30EV+	-	A2	○	29.19	30.69	2	200	2	200	0.5	0.1	23.0	KDZ33EV	-	A3	○	32.15	33.79	2	250	2	250	0.5	0.1	25.0	KDZ36EV+	-	A4	○	35.07	36.87	2	300	2	300	0.5	0.1	27.0																																																																
KDZ3.3EV	-	33	○		3.10	3.50	5	130	5	1000	0.5	20	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Y	33	○		3.25	3.50									KDZ3.6EV	-	36	○	3.40	3.80	5	130	5	1000	0.5	10	1.0	Y	36	○	3.60	3.85	KDZ3.9EV	-	39	○	3.70	4.10	5	130	5	1000	0.5	10	1.0	Y	39	○	3.89	4.16	KDZ4.3EV	Y	43	○	4.17	4.43	5	130	5	1000	0.5	5	1.0	KDZ4.7EV	Y	47	○	4.55	4.70	5	120	5	1000	0.5	5	1.0	KDZ5.1EV	Y	51	○	4.98	5.20	5	70	5	1000	0.5	1	1.5	KDZ5.6EV	Y	56	○	5.49	5.73	5	40	5	900	0.5	1	2.5	KDZ6.2EV	Y	62	○	6.06	6.33	5	30	5	500	0.5	1	3.0	KDZ6.8EV	Y	68	○	6.65	6.93	5	25	5	150	0.5	0.5	5.0	KDZ7.5EV	Y	75	○	7.28	7.60	5	23	5	120	0.5	0.5	6.0	KDZ8.2EV	Y	82	○	8.02	8.36	5	20	5	120	0.5	0.5	6.5	KDZ9.1EV	Y	91	○	8.85	9.23	5	18	5	120	0.5	0.5	7.0	KDZ10EV+	Y	10	○	9.77	10.21	5	15	5	120	0.5	0.5	8.0	KDZ11EV+	Y	11	○	10.76	11.22	5	15	5	120	0.5	0.5	8.5	KDZ12EV	Y	12	○	11.74	12.24	5	15	5	110	0.5	0.5	9.0	KDZ13EV+	Y	13	○	12.91	13.49	5	15	5	110	0.5	0.5	10.0	KDZ15EV	Y	15	○	14.34	14.98	5	15	5	110	0.5	0.5	11.0	KDZ16EV+	Y	16	○	15.85	16.51	5	18	5	150	0.5	0.5	12.0	KDZ18EV	Y	18	○	17.56	18.35	5	20	5	150	0.5	0.5	14.0	KDZ20EV	Y	20	○	19.52	20.39	5	25	5	200	0.5	0.5	15.0	KDZ22EV+	Y	22	○	21.54	22.47	5	30	5	200	0.5	0.5	17.0	KDZ24EV	Y	24	○	23.72	24.78	5	40	5	200	0.5	0.5	19.0	KDZ27EV+	-	27	○	26.19	27.53	2	150	2	150	0.5	0.1	21.0	KDZ30EV+	-	A2	○	29.19	30.69	2	200	2	200	0.5	0.1	23.0	KDZ33EV	-	A3	○	32.15	33.79	2	250	2	250	0.5	0.1	25.0	KDZ36EV+	-	A4	○	35.07	36.87	2	300	2	300	0.5	0.1	27.0																																																																																		
KDZ3.6EV	-	36	○		3.40	3.80	5	130	5	1000	0.5	10	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Y	36	○		3.60	3.85									KDZ3.9EV	-	39	○	3.70	4.10	5	130	5	1000	0.5	10	1.0	Y	39	○	3.89	4.16	KDZ4.3EV	Y	43	○	4.17	4.43	5	130	5	1000	0.5	5	1.0	KDZ4.7EV	Y	47	○	4.55	4.70	5	120	5	1000	0.5	5	1.0	KDZ5.1EV	Y	51	○	4.98	5.20	5	70	5	1000	0.5	1	1.5	KDZ5.6EV	Y	56	○	5.49	5.73	5	40	5	900	0.5	1	2.5	KDZ6.2EV	Y	62	○	6.06	6.33	5	30	5	500	0.5	1	3.0	KDZ6.8EV	Y	68	○	6.65	6.93	5	25	5	150	0.5	0.5	5.0	KDZ7.5EV	Y	75	○	7.28	7.60	5	23	5	120	0.5	0.5	6.0	KDZ8.2EV	Y	82	○	8.02	8.36	5	20	5	120	0.5	0.5	6.5	KDZ9.1EV	Y	91	○	8.85	9.23	5	18	5	120	0.5	0.5	7.0	KDZ10EV+	Y	10	○	9.77	10.21	5	15	5	120	0.5	0.5	8.0	KDZ11EV+	Y	11	○	10.76	11.22	5	15	5	120	0.5	0.5	8.5	KDZ12EV	Y	12	○	11.74	12.24	5	15	5	110	0.5	0.5	9.0	KDZ13EV+	Y	13	○	12.91	13.49	5	15	5	110	0.5	0.5	10.0	KDZ15EV	Y	15	○	14.34	14.98	5	15	5	110	0.5	0.5	11.0	KDZ16EV+	Y	16	○	15.85	16.51	5	18	5	150	0.5	0.5	12.0	KDZ18EV	Y	18	○	17.56	18.35	5	20	5	150	0.5	0.5	14.0	KDZ20EV	Y	20	○	19.52	20.39	5	25	5	200	0.5	0.5	15.0	KDZ22EV+	Y	22	○	21.54	22.47	5	30	5	200	0.5	0.5	17.0	KDZ24EV	Y	24	○	23.72	24.78	5	40	5	200	0.5	0.5	19.0	KDZ27EV+	-	27	○	26.19	27.53	2	150	2	150	0.5	0.1	21.0	KDZ30EV+	-	A2	○	29.19	30.69	2	200	2	200	0.5	0.1	23.0	KDZ33EV	-	A3	○	32.15	33.79	2	250	2	250	0.5	0.1	25.0	KDZ36EV+	-	A4	○	35.07	36.87	2	300	2	300	0.5	0.1	27.0																																																																																																				
KDZ3.9EV	-	39	○		3.70	4.10	5	130	5	1000	0.5	10	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Y	39	○		3.89	4.16									KDZ4.3EV	Y	43	○	4.17	4.43	5	130	5	1000	0.5	5	1.0	KDZ4.7EV	Y	47	○	4.55	4.70	5	120	5	1000	0.5	5	1.0	KDZ5.1EV	Y	51	○	4.98	5.20	5	70	5	1000	0.5	1	1.5	KDZ5.6EV	Y	56	○	5.49	5.73	5	40	5	900	0.5	1	2.5	KDZ6.2EV	Y	62	○	6.06	6.33	5	30	5	500	0.5	1	3.0	KDZ6.8EV	Y	68	○	6.65	6.93	5	25	5	150	0.5	0.5	5.0	KDZ7.5EV	Y	75	○	7.28	7.60	5	23	5	120	0.5	0.5	6.0	KDZ8.2EV	Y	82	○	8.02	8.36	5	20	5	120	0.5	0.5	6.5	KDZ9.1EV	Y	91	○	8.85	9.23	5	18	5	120	0.5	0.5	7.0	KDZ10EV+	Y	10	○	9.77	10.21	5	15	5	120	0.5	0.5	8.0	KDZ11EV+	Y	11	○	10.76	11.22	5	15	5	120	0.5	0.5	8.5	KDZ12EV	Y	12	○	11.74	12.24	5	15	5	110	0.5	0.5	9.0	KDZ13EV+	Y	13	○	12.91	13.49	5	15	5	110	0.5	0.5	10.0	KDZ15EV	Y	15	○	14.34	14.98	5	15	5	110	0.5	0.5	11.0	KDZ16EV+	Y	16	○	15.85	16.51	5	18	5	150	0.5	0.5	12.0	KDZ18EV	Y	18	○	17.56	18.35	5	20	5	150	0.5	0.5	14.0	KDZ20EV	Y	20	○	19.52	20.39	5	25	5	200	0.5	0.5	15.0	KDZ22EV+	Y	22	○	21.54	22.47	5	30	5	200	0.5	0.5	17.0	KDZ24EV	Y	24	○	23.72	24.78	5	40	5	200	0.5	0.5	19.0	KDZ27EV+	-	27	○	26.19	27.53	2	150	2	150	0.5	0.1	21.0	KDZ30EV+	-	A2	○	29.19	30.69	2	200	2	200	0.5	0.1	23.0	KDZ33EV	-	A3	○	32.15	33.79	2	250	2	250	0.5	0.1	25.0	KDZ36EV+	-	A4	○	35.07	36.87	2	300	2	300	0.5	0.1	27.0																																																																																																																						
KDZ4.3EV	Y	43	○		4.17	4.43	5	130	5	1000	0.5	5	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ4.7EV	Y	47	○		4.55	4.70	5	120	5	1000	0.5	5	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ5.1EV	Y	51	○		4.98	5.20	5	70	5	1000	0.5	1	1.5																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ5.6EV	Y	56	○		5.49	5.73	5	40	5	900	0.5	1	2.5																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ6.2EV	Y	62	○		6.06	6.33	5	30	5	500	0.5	1	3.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ6.8EV	Y	68	○		6.65	6.93	5	25	5	150	0.5	0.5	5.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ7.5EV	Y	75	○		7.28	7.60	5	23	5	120	0.5	0.5	6.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ8.2EV	Y	82	○		8.02	8.36	5	20	5	120	0.5	0.5	6.5																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ9.1EV	Y	91	○		8.85	9.23	5	18	5	120	0.5	0.5	7.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ10EV+	Y	10	○		9.77	10.21	5	15	5	120	0.5	0.5	8.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ11EV+	Y	11	○		10.76	11.22	5	15	5	120	0.5	0.5	8.5																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ12EV	Y	12	○		11.74	12.24	5	15	5	110	0.5	0.5	9.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ13EV+	Y	13	○		12.91	13.49	5	15	5	110	0.5	0.5	10.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ15EV	Y	15	○		14.34	14.98	5	15	5	110	0.5	0.5	11.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ16EV+	Y	16	○		15.85	16.51	5	18	5	150	0.5	0.5	12.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ18EV	Y	18	○		17.56	18.35	5	20	5	150	0.5	0.5	14.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ20EV	Y	20	○	19.52	20.39	5	25	5	200	0.5	0.5	15.0																																																																																																																																																																																																																																																																																																																																																																																																																																			
KDZ22EV+	Y	22	○	21.54	22.47	5	30	5	200	0.5	0.5	17.0																																																																																																																																																																																																																																																																																																																																																																																																																																			
KDZ24EV	Y	24	○	23.72	24.78	5	40	5	200	0.5	0.5	19.0																																																																																																																																																																																																																																																																																																																																																																																																																																			
KDZ27EV+	-	27	○	26.19	27.53	2	150	2	150	0.5	0.1	21.0																																																																																																																																																																																																																																																																																																																																																																																																																																			
KDZ30EV+	-	A2	○	29.19	30.69	2	200	2	200	0.5	0.1	23.0																																																																																																																																																																																																																																																																																																																																																																																																																																			
KDZ33EV	-	A3	○	32.15	33.79	2	250	2	250	0.5	0.1	25.0																																																																																																																																																																																																																																																																																																																																																																																																																																			
KDZ36EV+	-	A4	○	35.07	36.87	2	300	2	300	0.5	0.1	27.0																																																																																																																																																																																																																																																																																																																																																																																																																																			

Note) ○ : AEC-Q Qualified
Note) + : Irregular Production

DIODE

Zener Diode

■ 200mW Zener Diode

Type No.	Grade	Mark	AEC-Q	P _D (mW)	V _Z (V)			Z _Z (Ω)		Z _{ZK} (Ω)		I _R (μA)		PKG																																																																																																																																																																																																																																																																																																																																																																																																																																	
					Min.	Max.	@I _Z (mA)	Max.	@I _Z (mA)	Max.	@I _Z (mA)	Max.	@V _R (V)																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ2.0V	-	2A	○	200	1.85	2.15	5	100	5	1000	0.5	120	1.0	USC																																																																																																																																																																																																																																																																																																																																																																																																																																	
	Y	2A	○		1.95	2.15									KDZ2.2V	-	2B	○	2.05	2.38	5	100	5	1000	0.5	120	1.0	Y	2B	○	2.16	2.38	KDZ2.4V	-	2C	○	2.28	2.60	5	100	5	1000	0.5	120	1.0	Y	2C	○	2.40	2.60	KDZ2.7V	-	2D	○	2.50	2.90	5	110	5	1000	0.5	120	1.0	Y	2D	○	2.65	2.90	KDZ3.0V	-	30	○	2.80	3.20	5	120	5	1000	0.5	50	1.0	Y	30	○	2.95	3.20	KDZ3.3V	-	33	○	3.10	3.50	5	130	5	1000	0.5	20	1.0	Y	33	○	3.25	3.50	KDZ3.6V	-	36	○	3.40	3.80	5	130	5	1000	0.5	10	1.0	Y	36	○	3.60	3.85	KDZ3.9V	-	39	○	3.70	4.10	5	130	5	1000	0.5	10	1.0	Y	39	○	3.89	4.16	KDZ4.3V	Y	43	○	4.17	4.43	5	130	5	1000	0.5	5	1.0	KDZ4.7V	Y	47	○	4.55	4.75	5	120	5	1000	0.5	5	1.0	KDZ5.1V	Y	51	○	4.98	5.20	5	70	5	1000	0.5	1	1.5	KDZ5.6V	Y	56	○	5.49	5.73	5	40	5	900	0.5	1	2.5	KDZ6.2V	Y	62	○	6.06	6.33	5	30	5	500	0.5	1	3.0	KDZ6.8V	Y	68	○	6.65	6.93	5	25	5	150	0.5	0.5	5.0	KDZ7.5V	Y	75	○	7.28	7.60	5	23	5	120	0.5	0.5	6.0	KDZ8.2V	Y	82	○	8.02	8.36	5	20	5	120	0.5	0.5	6.5	KDZ9.1V	Y	91	○	8.85	9.23	5	18	5	120	0.5	0.5	7.0	KDZ10V	Y	10	○	9.77	10.21	5	15	5	120	0.5	0.5	8.0	KDZ11V	Y	11	○	10.76	11.22	5	15	5	120	0.5	0.5	8.5	KDZ12V	Y	12	○	11.74	12.24	5	15	5	110	0.5	0.5	9.0	KDZ13V	Y	13	○	12.91	13.49	5	15	5	110	0.5	0.5	10.0	KDZ15V	Y	15	○	14.34	14.98	5	15	5	110	0.5	0.5	11.0	KDZ16V	Y	16	○	15.85	16.51	5	18	5	150	0.5	0.5	12.0	KDZ18V	Y	18	○	17.56	18.35	5	20	5	150	0.5	0.5	14.0	KDZ20V	Y	20	○	19.52	20.39	5	25	5	200	0.5	0.5	15.0	KDZ22V	Y	22	○	21.54	22.47	5	30	5	200	0.5	0.5	17.0	KDZ24V	Y	24	○	23.72	24.78	5	40	5	200	0.5	0.5	19.0	KDZ27V	-	A1	○	26.19	27.53	2	150	2	150	0.5	0.1	21.0	KDZ30V	-	A2	○	29.19	30.69	2	200	2	200	0.5	0.1	23.0	KDZ33V	-	A3	○	32.15	33.79	2	250	2	250	0.5	0.1	25.0	KDZ36V	-	A4	○	35.07
KDZ2.2V	-	2B	○		2.05	2.38	5	100	5	1000	0.5	120	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Y	2B	○		2.16	2.38									KDZ2.4V	-	2C	○	2.28	2.60	5	100	5	1000	0.5	120	1.0	Y	2C	○	2.40	2.60	KDZ2.7V	-	2D	○	2.50	2.90	5	110	5	1000	0.5	120	1.0	Y	2D	○	2.65	2.90	KDZ3.0V	-	30	○	2.80	3.20	5	120	5	1000	0.5	50	1.0	Y	30	○	2.95	3.20	KDZ3.3V	-	33	○	3.10	3.50	5	130	5	1000	0.5	20	1.0	Y	33	○	3.25	3.50	KDZ3.6V	-	36	○	3.40	3.80	5	130	5	1000	0.5	10	1.0	Y	36	○	3.60	3.85	KDZ3.9V	-	39	○	3.70	4.10	5	130	5	1000	0.5	10	1.0	Y	39	○	3.89	4.16	KDZ4.3V	Y	43	○	4.17	4.43	5	130	5	1000	0.5	5	1.0	KDZ4.7V	Y	47	○	4.55	4.75	5	120	5	1000	0.5	5	1.0	KDZ5.1V	Y	51	○	4.98	5.20	5	70	5	1000	0.5	1	1.5	KDZ5.6V	Y	56	○	5.49	5.73	5	40	5	900	0.5	1	2.5	KDZ6.2V	Y	62	○	6.06	6.33	5	30	5	500	0.5	1	3.0	KDZ6.8V	Y	68	○	6.65	6.93	5	25	5	150	0.5	0.5	5.0	KDZ7.5V	Y	75	○	7.28	7.60	5	23	5	120	0.5	0.5	6.0	KDZ8.2V	Y	82	○	8.02	8.36	5	20	5	120	0.5	0.5	6.5	KDZ9.1V	Y	91	○	8.85	9.23	5	18	5	120	0.5	0.5	7.0	KDZ10V	Y	10	○	9.77	10.21	5	15	5	120	0.5	0.5	8.0	KDZ11V	Y	11	○	10.76	11.22	5	15	5	120	0.5	0.5	8.5	KDZ12V	Y	12	○	11.74	12.24	5	15	5	110	0.5	0.5	9.0	KDZ13V	Y	13	○	12.91	13.49	5	15	5	110	0.5	0.5	10.0	KDZ15V	Y	15	○	14.34	14.98	5	15	5	110	0.5	0.5	11.0	KDZ16V	Y	16	○	15.85	16.51	5	18	5	150	0.5	0.5	12.0	KDZ18V	Y	18	○	17.56	18.35	5	20	5	150	0.5	0.5	14.0	KDZ20V	Y	20	○	19.52	20.39	5	25	5	200	0.5	0.5	15.0	KDZ22V	Y	22	○	21.54	22.47	5	30	5	200	0.5	0.5	17.0	KDZ24V	Y	24	○	23.72	24.78	5	40	5	200	0.5	0.5	19.0	KDZ27V	-	A1	○	26.19	27.53	2	150	2	150	0.5	0.1	21.0	KDZ30V	-	A2	○	29.19	30.69	2	200	2	200	0.5	0.1	23.0	KDZ33V	-	A3	○	32.15	33.79	2	250	2	250	0.5	0.1	25.0	KDZ36V	-	A4	○	35.07	36.87	2	300	2	300	0.5	0.1	27.0										
KDZ2.4V	-	2C	○		2.28	2.60	5	100	5	1000	0.5	120	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Y	2C	○		2.40	2.60									KDZ2.7V	-	2D	○	2.50	2.90	5	110	5	1000	0.5	120	1.0	Y	2D	○	2.65	2.90	KDZ3.0V	-	30	○	2.80	3.20	5	120	5	1000	0.5	50	1.0	Y	30	○	2.95	3.20	KDZ3.3V	-	33	○	3.10	3.50	5	130	5	1000	0.5	20	1.0	Y	33	○	3.25	3.50	KDZ3.6V	-	36	○	3.40	3.80	5	130	5	1000	0.5	10	1.0	Y	36	○	3.60	3.85	KDZ3.9V	-	39	○	3.70	4.10	5	130	5	1000	0.5	10	1.0	Y	39	○	3.89	4.16	KDZ4.3V	Y	43	○	4.17	4.43	5	130	5	1000	0.5	5	1.0	KDZ4.7V	Y	47	○	4.55	4.75	5	120	5	1000	0.5	5	1.0	KDZ5.1V	Y	51	○	4.98	5.20	5	70	5	1000	0.5	1	1.5	KDZ5.6V	Y	56	○	5.49	5.73	5	40	5	900	0.5	1	2.5	KDZ6.2V	Y	62	○	6.06	6.33	5	30	5	500	0.5	1	3.0	KDZ6.8V	Y	68	○	6.65	6.93	5	25	5	150	0.5	0.5	5.0	KDZ7.5V	Y	75	○	7.28	7.60	5	23	5	120	0.5	0.5	6.0	KDZ8.2V	Y	82	○	8.02	8.36	5	20	5	120	0.5	0.5	6.5	KDZ9.1V	Y	91	○	8.85	9.23	5	18	5	120	0.5	0.5	7.0	KDZ10V	Y	10	○	9.77	10.21	5	15	5	120	0.5	0.5	8.0	KDZ11V	Y	11	○	10.76	11.22	5	15	5	120	0.5	0.5	8.5	KDZ12V	Y	12	○	11.74	12.24	5	15	5	110	0.5	0.5	9.0	KDZ13V	Y	13	○	12.91	13.49	5	15	5	110	0.5	0.5	10.0	KDZ15V	Y	15	○	14.34	14.98	5	15	5	110	0.5	0.5	11.0	KDZ16V	Y	16	○	15.85	16.51	5	18	5	150	0.5	0.5	12.0	KDZ18V	Y	18	○	17.56	18.35	5	20	5	150	0.5	0.5	14.0	KDZ20V	Y	20	○	19.52	20.39	5	25	5	200	0.5	0.5	15.0	KDZ22V	Y	22	○	21.54	22.47	5	30	5	200	0.5	0.5	17.0	KDZ24V	Y	24	○	23.72	24.78	5	40	5	200	0.5	0.5	19.0	KDZ27V	-	A1	○	26.19	27.53	2	150	2	150	0.5	0.1	21.0	KDZ30V	-	A2	○	29.19	30.69	2	200	2	200	0.5	0.1	23.0	KDZ33V	-	A3	○	32.15	33.79	2	250	2	250	0.5	0.1	25.0	KDZ36V	-	A4	○	35.07	36.87	2	300	2	300	0.5	0.1	27.0																												
KDZ2.7V	-	2D	○		2.50	2.90	5	110	5	1000	0.5	120	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Y	2D	○		2.65	2.90									KDZ3.0V	-	30	○	2.80	3.20	5	120	5	1000	0.5	50	1.0	Y	30	○	2.95	3.20	KDZ3.3V	-	33	○	3.10	3.50	5	130	5	1000	0.5	20	1.0	Y	33	○	3.25	3.50	KDZ3.6V	-	36	○	3.40	3.80	5	130	5	1000	0.5	10	1.0	Y	36	○	3.60	3.85	KDZ3.9V	-	39	○	3.70	4.10	5	130	5	1000	0.5	10	1.0	Y	39	○	3.89	4.16	KDZ4.3V	Y	43	○	4.17	4.43	5	130	5	1000	0.5	5	1.0	KDZ4.7V	Y	47	○	4.55	4.75	5	120	5	1000	0.5	5	1.0	KDZ5.1V	Y	51	○	4.98	5.20	5	70	5	1000	0.5	1	1.5	KDZ5.6V	Y	56	○	5.49	5.73	5	40	5	900	0.5	1	2.5	KDZ6.2V	Y	62	○	6.06	6.33	5	30	5	500	0.5	1	3.0	KDZ6.8V	Y	68	○	6.65	6.93	5	25	5	150	0.5	0.5	5.0	KDZ7.5V	Y	75	○	7.28	7.60	5	23	5	120	0.5	0.5	6.0	KDZ8.2V	Y	82	○	8.02	8.36	5	20	5	120	0.5	0.5	6.5	KDZ9.1V	Y	91	○	8.85	9.23	5	18	5	120	0.5	0.5	7.0	KDZ10V	Y	10	○	9.77	10.21	5	15	5	120	0.5	0.5	8.0	KDZ11V	Y	11	○	10.76	11.22	5	15	5	120	0.5	0.5	8.5	KDZ12V	Y	12	○	11.74	12.24	5	15	5	110	0.5	0.5	9.0	KDZ13V	Y	13	○	12.91	13.49	5	15	5	110	0.5	0.5	10.0	KDZ15V	Y	15	○	14.34	14.98	5	15	5	110	0.5	0.5	11.0	KDZ16V	Y	16	○	15.85	16.51	5	18	5	150	0.5	0.5	12.0	KDZ18V	Y	18	○	17.56	18.35	5	20	5	150	0.5	0.5	14.0	KDZ20V	Y	20	○	19.52	20.39	5	25	5	200	0.5	0.5	15.0	KDZ22V	Y	22	○	21.54	22.47	5	30	5	200	0.5	0.5	17.0	KDZ24V	Y	24	○	23.72	24.78	5	40	5	200	0.5	0.5	19.0	KDZ27V	-	A1	○	26.19	27.53	2	150	2	150	0.5	0.1	21.0	KDZ30V	-	A2	○	29.19	30.69	2	200	2	200	0.5	0.1	23.0	KDZ33V	-	A3	○	32.15	33.79	2	250	2	250	0.5	0.1	25.0	KDZ36V	-	A4	○	35.07	36.87	2	300	2	300	0.5	0.1	27.0																																														
KDZ3.0V	-	30	○		2.80	3.20	5	120	5	1000	0.5	50	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Y	30	○		2.95	3.20									KDZ3.3V	-	33	○	3.10	3.50	5	130	5	1000	0.5	20	1.0	Y	33	○	3.25	3.50	KDZ3.6V	-	36	○	3.40	3.80	5	130	5	1000	0.5	10	1.0	Y	36	○	3.60	3.85	KDZ3.9V	-	39	○	3.70	4.10	5	130	5	1000	0.5	10	1.0	Y	39	○	3.89	4.16	KDZ4.3V	Y	43	○	4.17	4.43	5	130	5	1000	0.5	5	1.0	KDZ4.7V	Y	47	○	4.55	4.75	5	120	5	1000	0.5	5	1.0	KDZ5.1V	Y	51	○	4.98	5.20	5	70	5	1000	0.5	1	1.5	KDZ5.6V	Y	56	○	5.49	5.73	5	40	5	900	0.5	1	2.5	KDZ6.2V	Y	62	○	6.06	6.33	5	30	5	500	0.5	1	3.0	KDZ6.8V	Y	68	○	6.65	6.93	5	25	5	150	0.5	0.5	5.0	KDZ7.5V	Y	75	○	7.28	7.60	5	23	5	120	0.5	0.5	6.0	KDZ8.2V	Y	82	○	8.02	8.36	5	20	5	120	0.5	0.5	6.5	KDZ9.1V	Y	91	○	8.85	9.23	5	18	5	120	0.5	0.5	7.0	KDZ10V	Y	10	○	9.77	10.21	5	15	5	120	0.5	0.5	8.0	KDZ11V	Y	11	○	10.76	11.22	5	15	5	120	0.5	0.5	8.5	KDZ12V	Y	12	○	11.74	12.24	5	15	5	110	0.5	0.5	9.0	KDZ13V	Y	13	○	12.91	13.49	5	15	5	110	0.5	0.5	10.0	KDZ15V	Y	15	○	14.34	14.98	5	15	5	110	0.5	0.5	11.0	KDZ16V	Y	16	○	15.85	16.51	5	18	5	150	0.5	0.5	12.0	KDZ18V	Y	18	○	17.56	18.35	5	20	5	150	0.5	0.5	14.0	KDZ20V	Y	20	○	19.52	20.39	5	25	5	200	0.5	0.5	15.0	KDZ22V	Y	22	○	21.54	22.47	5	30	5	200	0.5	0.5	17.0	KDZ24V	Y	24	○	23.72	24.78	5	40	5	200	0.5	0.5	19.0	KDZ27V	-	A1	○	26.19	27.53	2	150	2	150	0.5	0.1	21.0	KDZ30V	-	A2	○	29.19	30.69	2	200	2	200	0.5	0.1	23.0	KDZ33V	-	A3	○	32.15	33.79	2	250	2	250	0.5	0.1	25.0	KDZ36V	-	A4	○	35.07	36.87	2	300	2	300	0.5	0.1	27.0																																																																
KDZ3.3V	-	33	○		3.10	3.50	5	130	5	1000	0.5	20	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Y	33	○		3.25	3.50									KDZ3.6V	-	36	○	3.40	3.80	5	130	5	1000	0.5	10	1.0	Y	36	○	3.60	3.85	KDZ3.9V	-	39	○	3.70	4.10	5	130	5	1000	0.5	10	1.0	Y	39	○	3.89	4.16	KDZ4.3V	Y	43	○	4.17	4.43	5	130	5	1000	0.5	5	1.0	KDZ4.7V	Y	47	○	4.55	4.75	5	120	5	1000	0.5	5	1.0	KDZ5.1V	Y	51	○	4.98	5.20	5	70	5	1000	0.5	1	1.5	KDZ5.6V	Y	56	○	5.49	5.73	5	40	5	900	0.5	1	2.5	KDZ6.2V	Y	62	○	6.06	6.33	5	30	5	500	0.5	1	3.0	KDZ6.8V	Y	68	○	6.65	6.93	5	25	5	150	0.5	0.5	5.0	KDZ7.5V	Y	75	○	7.28	7.60	5	23	5	120	0.5	0.5	6.0	KDZ8.2V	Y	82	○	8.02	8.36	5	20	5	120	0.5	0.5	6.5	KDZ9.1V	Y	91	○	8.85	9.23	5	18	5	120	0.5	0.5	7.0	KDZ10V	Y	10	○	9.77	10.21	5	15	5	120	0.5	0.5	8.0	KDZ11V	Y	11	○	10.76	11.22	5	15	5	120	0.5	0.5	8.5	KDZ12V	Y	12	○	11.74	12.24	5	15	5	110	0.5	0.5	9.0	KDZ13V	Y	13	○	12.91	13.49	5	15	5	110	0.5	0.5	10.0	KDZ15V	Y	15	○	14.34	14.98	5	15	5	110	0.5	0.5	11.0	KDZ16V	Y	16	○	15.85	16.51	5	18	5	150	0.5	0.5	12.0	KDZ18V	Y	18	○	17.56	18.35	5	20	5	150	0.5	0.5	14.0	KDZ20V	Y	20	○	19.52	20.39	5	25	5	200	0.5	0.5	15.0	KDZ22V	Y	22	○	21.54	22.47	5	30	5	200	0.5	0.5	17.0	KDZ24V	Y	24	○	23.72	24.78	5	40	5	200	0.5	0.5	19.0	KDZ27V	-	A1	○	26.19	27.53	2	150	2	150	0.5	0.1	21.0	KDZ30V	-	A2	○	29.19	30.69	2	200	2	200	0.5	0.1	23.0	KDZ33V	-	A3	○	32.15	33.79	2	250	2	250	0.5	0.1	25.0	KDZ36V	-	A4	○	35.07	36.87	2	300	2	300	0.5	0.1	27.0																																																																																		
KDZ3.6V	-	36	○		3.40	3.80	5	130	5	1000	0.5	10	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Y	36	○		3.60	3.85									KDZ3.9V	-	39	○	3.70	4.10	5	130	5	1000	0.5	10	1.0	Y	39	○	3.89	4.16	KDZ4.3V	Y	43	○	4.17	4.43	5	130	5	1000	0.5	5	1.0	KDZ4.7V	Y	47	○	4.55	4.75	5	120	5	1000	0.5	5	1.0	KDZ5.1V	Y	51	○	4.98	5.20	5	70	5	1000	0.5	1	1.5	KDZ5.6V	Y	56	○	5.49	5.73	5	40	5	900	0.5	1	2.5	KDZ6.2V	Y	62	○	6.06	6.33	5	30	5	500	0.5	1	3.0	KDZ6.8V	Y	68	○	6.65	6.93	5	25	5	150	0.5	0.5	5.0	KDZ7.5V	Y	75	○	7.28	7.60	5	23	5	120	0.5	0.5	6.0	KDZ8.2V	Y	82	○	8.02	8.36	5	20	5	120	0.5	0.5	6.5	KDZ9.1V	Y	91	○	8.85	9.23	5	18	5	120	0.5	0.5	7.0	KDZ10V	Y	10	○	9.77	10.21	5	15	5	120	0.5	0.5	8.0	KDZ11V	Y	11	○	10.76	11.22	5	15	5	120	0.5	0.5	8.5	KDZ12V	Y	12	○	11.74	12.24	5	15	5	110	0.5	0.5	9.0	KDZ13V	Y	13	○	12.91	13.49	5	15	5	110	0.5	0.5	10.0	KDZ15V	Y	15	○	14.34	14.98	5	15	5	110	0.5	0.5	11.0	KDZ16V	Y	16	○	15.85	16.51	5	18	5	150	0.5	0.5	12.0	KDZ18V	Y	18	○	17.56	18.35	5	20	5	150	0.5	0.5	14.0	KDZ20V	Y	20	○	19.52	20.39	5	25	5	200	0.5	0.5	15.0	KDZ22V	Y	22	○	21.54	22.47	5	30	5	200	0.5	0.5	17.0	KDZ24V	Y	24	○	23.72	24.78	5	40	5	200	0.5	0.5	19.0	KDZ27V	-	A1	○	26.19	27.53	2	150	2	150	0.5	0.1	21.0	KDZ30V	-	A2	○	29.19	30.69	2	200	2	200	0.5	0.1	23.0	KDZ33V	-	A3	○	32.15	33.79	2	250	2	250	0.5	0.1	25.0	KDZ36V	-	A4	○	35.07	36.87	2	300	2	300	0.5	0.1	27.0																																																																																																				
KDZ3.9V	-	39	○		3.70	4.10	5	130	5	1000	0.5	10	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Y	39	○		3.89	4.16									KDZ4.3V	Y	43	○	4.17	4.43	5	130	5	1000	0.5	5	1.0	KDZ4.7V	Y	47	○	4.55	4.75	5	120	5	1000	0.5	5	1.0	KDZ5.1V	Y	51	○	4.98	5.20	5	70	5	1000	0.5	1	1.5	KDZ5.6V	Y	56	○	5.49	5.73	5	40	5	900	0.5	1	2.5	KDZ6.2V	Y	62	○	6.06	6.33	5	30	5	500	0.5	1	3.0	KDZ6.8V	Y	68	○	6.65	6.93	5	25	5	150	0.5	0.5	5.0	KDZ7.5V	Y	75	○	7.28	7.60	5	23	5	120	0.5	0.5	6.0	KDZ8.2V	Y	82	○	8.02	8.36	5	20	5	120	0.5	0.5	6.5	KDZ9.1V	Y	91	○	8.85	9.23	5	18	5	120	0.5	0.5	7.0	KDZ10V	Y	10	○	9.77	10.21	5	15	5	120	0.5	0.5	8.0	KDZ11V	Y	11	○	10.76	11.22	5	15	5	120	0.5	0.5	8.5	KDZ12V	Y	12	○	11.74	12.24	5	15	5	110	0.5	0.5	9.0	KDZ13V	Y	13	○	12.91	13.49	5	15	5	110	0.5	0.5	10.0	KDZ15V	Y	15	○	14.34	14.98	5	15	5	110	0.5	0.5	11.0	KDZ16V	Y	16	○	15.85	16.51	5	18	5	150	0.5	0.5	12.0	KDZ18V	Y	18	○	17.56	18.35	5	20	5	150	0.5	0.5	14.0	KDZ20V	Y	20	○	19.52	20.39	5	25	5	200	0.5	0.5	15.0	KDZ22V	Y	22	○	21.54	22.47	5	30	5	200	0.5	0.5	17.0	KDZ24V	Y	24	○	23.72	24.78	5	40	5	200	0.5	0.5	19.0	KDZ27V	-	A1	○	26.19	27.53	2	150	2	150	0.5	0.1	21.0	KDZ30V	-	A2	○	29.19	30.69	2	200	2	200	0.5	0.1	23.0	KDZ33V	-	A3	○	32.15	33.79	2	250	2	250	0.5	0.1	25.0	KDZ36V	-	A4	○	35.07	36.87	2	300	2	300	0.5	0.1	27.0																																																																																																																						
KDZ4.3V	Y	43	○		4.17	4.43	5	130	5	1000	0.5	5	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ4.7V	Y	47	○		4.55	4.75	5	120	5	1000	0.5	5	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ5.1V	Y	51	○		4.98	5.20	5	70	5	1000	0.5	1	1.5																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ5.6V	Y	56	○		5.49	5.73	5	40	5	900	0.5	1	2.5																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ6.2V	Y	62	○		6.06	6.33	5	30	5	500	0.5	1	3.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ6.8V	Y	68	○		6.65	6.93	5	25	5	150	0.5	0.5	5.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ7.5V	Y	75	○		7.28	7.60	5	23	5	120	0.5	0.5	6.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ8.2V	Y	82	○		8.02	8.36	5	20	5	120	0.5	0.5	6.5																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ9.1V	Y	91	○		8.85	9.23	5	18	5	120	0.5	0.5	7.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ10V	Y	10	○		9.77	10.21	5	15	5	120	0.5	0.5	8.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ11V	Y	11	○		10.76	11.22	5	15	5	120	0.5	0.5	8.5																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ12V	Y	12	○		11.74	12.24	5	15	5	110	0.5	0.5	9.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ13V	Y	13	○		12.91	13.49	5	15	5	110	0.5	0.5	10.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ15V	Y	15	○		14.34	14.98	5	15	5	110	0.5	0.5	11.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ16V	Y	16	○		15.85	16.51	5	18	5	150	0.5	0.5	12.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ18V	Y	18	○		17.56	18.35	5	20	5	150	0.5	0.5	14.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ20V	Y	20	○		19.52	20.39	5	25	5	200	0.5	0.5	15.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ22V	Y	22	○		21.54	22.47	5	30	5	200	0.5	0.5	17.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ24V	Y	24	○		23.72	24.78	5	40	5	200	0.5	0.5	19.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ27V	-	A1	○		26.19	27.53	2	150	2	150	0.5	0.1	21.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ30V	-	A2	○		29.19	30.69	2	200	2	200	0.5	0.1	23.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ33V	-	A3	○		32.15	33.79	2	250	2	250	0.5	0.1	25.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ36V	-	A4	○		35.07	36.87	2	300	2	300	0.5	0.1	27.0																																																																																																																																																																																																																																																																																																																																																																																																																																		

Note) ○ : AEC-Q Qualified

■ 200mW Zener Diode

TypeNo.	Grade	Mark	AEC-Q	P _D (mW)	V _Z (V)						I _R (μA)		PKG
					Min.	Max.	@I _Z (uA)	Min.	Max.	@I _Z (mA)	Max.	@V _R (V)	
KDZ4.7VL	Y	DL	○	200	2.60	3.30	10	4.68	4.93	5	2.0	1.0	USC
KDZ5.1VL	Y	DN	○		3.95	4.40	10	4.98	5.20	5	1.0	2.0	
KDZ5.6VL	Y	DM	○		5.10	5.55	10	5.49	5.73	5	0.5	2.5	
KDZ6.2VL	Y	DP	○		5.88	6.32	10	6.05	6.32	5	0.2	4.0	
KDZ6.8VL	Y	DS	○		6.66	6.94	10	6.64	6.93	5	0.1	4.0	
KDZ7.5VL	Y	DT	○		7.35	7.65	10	7.32	7.65	5	0.1	5.0	
KDZ8.2VL	Y	DV	○		8.04	8.36	10	8.02	8.37	5	0.1	5.0	
KDZ9.1VL	Y	DW	○		8.92	9.28	10	8.89	9.29	5	0.1	6.0	
KDZ10VL	Y	D3	○		9.80	10.20	10	9.80	10.22	5	0.1	7.0	
KDZ11VL	Y	D4	○		10.78	11.22	10	10.76	11.25	5	0.1	8.0	
KDZ12VL	Y	D5	○		11.76	12.24	10	11.76	12.24	5	0.1	9.0	
KDZ13VL	Y	D6	○		12.74	13.26	10	12.74	13.30	5	0.1	10.0	
KDZ15VL	Y	D7	○		14.70	15.30	10	14.70	15.30	5	0.1	11.0	
KDZ16VL	Y	D8	○		15.68	16.30	10	15.68	16.32	5	0.1	12.0	
KDZ18VL	Y	D9	○		17.64	18.36	10	17.64	18.36	5	0.1	13.0	
KDZ20VL	Y	LB	○		19.60	20.40	10	19.60	20.40	5	0.1	15.0	
KDZ22VL	Y	LC	○		21.56	22.44	10	21.56	22.47	5	0.1	17.0	
KDZ24VL	Y	LE	○		23.52	24.48	10	23.52	24.48	5	0.1	19.0	
KDZ27VL	-	LF	○		26.46	27.54	10	26.46	27.54	2	0.1	21.0	
KDZ30VL	-	LG	○		29.40	30.60	10	29.45	30.75	2	0.1	23.0	
KDZ33VL	-	LH	○	32.34	33.66	10	32.34	33.66	2	0.1	25.0		
KDZ36VL	-	LJ	○	35.28	36.72	10	35.28	36.72	2	0.1	27.0		
KDZ39VL	-	3A	○	38.24	39.76	10	38.22	39.78	2	0.1	30.0		

Note) ○ : AEC-Q Qualified

DIODE

Zener Diode

200mW Zener Diode

Type No.	Grade	Mark	AEC-Q	P _D (mW)	V _Z (V)			Z _Z (Ω)		Z _{ZK} (Ω)		I _R (μA)		PKG
					Min.	Max.	@I _Z (mA)	Max.	@I _Z (mA)	Max.	@I _Z (mA)	Max.	@V _R (V)	
Z02W2.0V	-	2A	○	200	1.85	2.15	5	100	5	1000	0.5	120	1	SOT-23
	X	2AX	○		1.85	2.05	5	100	5	1000	0.5	120	1	
Z02W2.2V+	-	2B	○		2.05	2.38	5	100	5	1000	0.5	120	1	
	X	2BX	○		2.05	2.26	5	100	5	1000	0.5	120	1	
Z02W2.4V	-	2C	○		2.28	2.60	5	100	5	1000	0.5	120	1	
	X	2CX	○		2.28	2.50	5	100	5	1000	0.5	120	1	
Z02W2.7V	-	2D	○		2.50	2.90	5	110	5	1000	0.5	120	1	
	X	2DX	○		2.50	2.75	5	110	5	1000	0.5	120	1	
Z02W3.0V	-	30	○		2.80	3.20	5	120	5	1000	0.5	50	1	
	X	30X	○		2.80	3.05	5	120	5	1000	0.5	50	1	
Z02W3.3V	-	33	○		3.10	3.50	5	130	5	1000	0.5	20	1	
	X	33X	○		3.10	3.35	5	130	5	1000	0.5	20	1	
Z02W3.6V	-	36	○		3.40	3.80	5	130	5	1000	0.5	10	1	
	X	36X	○		3.40	3.65	5	130	5	1000	0.5	10	1	
Z02W3.9V	-	39	○		3.70	4.10	5	130	5	1000	0.5	10	1	
	X	39X	○		3.70	3.97	5	130	5	1000	0.5	10	1	
Z02W4.3V	Y	4.3Y	○		4.13	4.35	5	130	5	1000	0.5	5	1	
Z02W4.7V	Y	4.7Y	○		4.53	4.76	5	120	5	1000	0.5	5	1	
Z02W5.1V	Y	5.1Y	○		4.97	5.240	5	70	5	1000	0.5	1	1.5	
Z02W5.6V	Y	5.6Y	○		5.43	5.81	5	40	5	900	0.5	1	2.5	
Z02W6.2V	Y	6.2Y	○		6.00	6.39	5	30	5	500	0.5	1	3	
Z02W6.8V	Y	6.8Y	○		6.60	7.02	5	25	5	150	0.5	0.5	5	
Z02W7.5V	Y	7.5Y	○		7.23	7.66	5	23	5	120	0.5	0.5	6	
Z02W8.2V	Y	8.2Y	○		7.96	8.43	5	20	5	120	0.5	0.5	6.5	
Z02W9.1V	Y	9.1Y	○		8.80	9.30	5	18	5	120	0.5	0.5	7	
Z02W10V	Y	10Y	○		9.73	10.26	5	15	5	120	0.5	0.5	8	
Z02W11V	Y	11Y	○		10.73	11.26	5	15	5	120	0.5	0.5	8.5	
Z02W12V	Y	12Y	○		11.73	12.26	5	15	5	110	0.5	0.5	9	
Z02W13V	Y	13Y	○		12.88	13.57	5	15	5	110	0.5	0.5	10	
Z02W15V	Y	15Y	○		14.33	15.11	5	15	5	110	0.5	0.5	11	
Z02W16V	Y	16Y	○		15.80	16.60	5	18	5	150	0.5	0.5	12	
Z02W18V	Y	18Y	○		17.46	18.43	5	20	5	150	0.5	0.5	14	
Z02W20V	Y	20Y	○		19.48	20.46	5	25	5	200	0.5	0.5	15	
Z02W22V	Y	22Y	○		21.48	22.56	5	30	5	200	0.5	0.5	17	
Z02W24V	Y	24Y	○		23.61	24.92	5	40	5	200	0.5	0.5	19	
Z02W27V	-	27A	○		26.19	27.53	2	150	2	150	0.5	0.1	21	
Z02W30V	-	30A	○		29.19	30.69	2	200	2	200	0.5	0.1	23	
Z02W33V	-	33A	○		32.15	33.79	2	250	2	250	0.5	0.1	25	
Z02W36V	-	36A	○		35.07	36.87	2	300	2	300	0.5	0.1	27	

Note) ○ : AEC-Q Qualified
 Note) + : Irregular Production

■ 300mW Zener Diode

TypeNo.	Mark	AEC-Q	P _D (mW)	V _Z (V)			Z _Z (Ω)		Z _{ZK} (Ω)		I _R (μA)		PKG
				Min.	Max.	@I _Z (mA)	Max.	@I _Z (mA)	Max.	@I _Z (mA)	Max.	@V _R (V)	
BZX84C2V0+	2AH	○	300	1.85	2.15	5	100	5	1000	0.5	120	1	SOT-23
BZX84C2V2+	2BH	○		2.05	2.38	5	100	5	1000	0.5	120	1	
BZX84C2V4+	2CH	○		2.28	2.6	5	100	5	1000	0.5	120	1	
BZX84C2V7+	2DH	○		2.50	2.9	5	100	5	1000	0.5	120	1	
BZX84C3V0+	30H	○		2.80	3.2	5	120	5	1000	0.5	50	1	
BZX84C3V3	33H	○		3.10	3.5	5	130	5	1000	0.5	20	1	
BZX84C3V6+	36H	○		3.40	3.8	5	130	5	1000	0.5	10	1	
BZX84C3V9+	39H	○		3.70	4.1	5	130	5	1000	0.5	10	1	
BZX84C4V3	4.3H	○		4.13	4.35	5	130	5	1000	0.5	5	1	
BZX84C4V7	4.7H	○		4.53	4.76	5	120	5	1000	0.5	5	1	
BZX84C5V1	5.1H	○		4.97	5.24	5	70	5	1000	0.5	1	1.5	
BZX84C5V6	5.6H	○		5.43	5.81	5	40	5	900	0.5	1	2.5	
BZX84C6V2	6.2H	○		6.00	6.39	5	30	5	500	0.5	1	3	
BZX84C6V8	6.8H	○		6.60	7.02	5	25	5	150	0.5	0.5	5	
BZX84C7V5+	7.5H	○		7.23	7.66	5	23	5	120	0.5	0.5	6	
BZX84C8V2+	8.2H	○		7.96	8.43	5	20	5	120	0.5	0.5	6.5	
BZX84C9V1	9.1H	○		8.80	9.3	5	18	5	120	0.5	0.5	7	
BZX84C10	10H	○		9.73	10.26	5	15	5	120	0.5	0.5	8	
BZX84C11	11H	○		10.73	11.26	5	15	5	120	0.5	0.5	8.5	
BZX84C12	12H	○		11.73	12.26	5	15	5	110	0.5	0.5	9	
BZX84C13	13H	○		12.88	13.57	5	15	5	110	0.5	0.5	10	
BZX84C15+	15H	○		14.33	15.11	5	15	5	110	0.5	0.5	11	
BZX84C16+	16H	○		15.80	16.6	5	18	5	150	0.5	0.5	12	
BZX84C18+	18H	○		17.46	18.43	5	20	5	150	0.5	0.5	14	
BZX84C20	20H	○		19.48	20.46	5	25	5	200	0.5	0.5	15	
BZX84C22+	22H	○		21.48	22.56	5	30	5	200	0.5	0.5	17	
BZX84C24	24H	○		23.61	24.92	5	40	5	200	0.5	0.5	19	
BZX84C27+	27B	○		26.19	27.53	2	150	2	150	0.5	0.1	21	
BZX84C30+	30B	○		29.19	30.69	2	200	2	200	0.5	0.1	23	
BZX84C33+	33B	○		32.15	33.79	2	250	2	250	0.5	0.1	25	
BZX84C36	36B	○	35.01	36.87	2	300	2	300	0.5	0.1	27		

Note) ○ : AEC-Q Qualified
Note) + : Irregular Production

DIODE

Zener Diode

■ 500mW Zener Diode

TypeNo.	Grade	Mark	AEC-Q	P _D (mW)	V _Z (V)			Z _Z (Ω)		Z _{Zk} (Ω)		I _R (μA)		PKG																																																																																																																																																																																																																																																																																																																																																																																																																																	
					Min.	Max.	@I _Z (mA)	Max.	@I _Z (mA)	Max.	@I _Z (mA)	Max.	@V _R (V)																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ2.0WV	-	2A	○	500	1.85	2.15	5	100	5	1000	0.5	120	1.0	SOD-123																																																																																																																																																																																																																																																																																																																																																																																																																																	
	Y	2A	○		1.95	2.15									KDZ2.2WV	-	2B	○	2.05	2.38	5	100	5	1000	0.5	120	1.0	Y	2B	○	2.16	2.38	KDZ2.4WV	-	2C	○	2.28	2.60	5	100	5	1000	0.5	120	1.0	Y	2C	○	2.40	2.60	KDZ2.7WV	-	2D	○	2.50	2.90	5	110	5	1000	0.5	120	1.0	Y	2D	○	2.65	2.90	KDZ3.0WV	-	30	○	2.80	3.20	5	120	5	1000	0.5	50	1.0	Y	30	○	2.95	3.20	KDZ3.3WV	-	33	○	3.10	3.50	5	130	5	1000	0.5	20	1.0	Y	33	○	3.25	3.50	KDZ3.6WV	-	36	○	3.40	3.80	5	130	5	1000	0.5	10	1.0	Y	36	○	3.60	3.845	KDZ3.9WV	-	39	○	3.70	4.10	5	130	5	1000	0.5	10	1.0	Y	39	○	3.890	4.160	KDZ4.3WV	Y	43	○	4.17	4.43	5	130	5	1000	0.5	5	1.0	KDZ4.7WV	Y	47	○	4.55	4.75	5	120	5	1000	0.5	5	1.0	KDZ5.1WV	Y	51	○	4.98	5.20	5	70	5	1000	0.5	1	1.5	KDZ5.6WV	Y	56	○	5.49	5.73	5	40	5	900	0.5	1	2.5	KDZ6.2WV	Y	62	○	6.06	6.33	5	30	5	500	0.5	1	3.0	KDZ6.8WV	Y	68	○	6.65	6.93	5	25	5	150	0.5	0.5	5.0	KDZ7.5WV	Y	75	○	7.28	7.60	5	23	5	120	0.5	0.5	6.0	KDZ8.2WV	Y	82	○	8.02	8.36	5	20	5	120	0.5	0.5	6.5	KDZ9.1WV	Y	91	○	8.85	9.23	5	18	5	120	0.5	0.5	7.0	KDZ10WV	Y	10	○	9.77	10.21	5	15	5	120	0.5	0.5	8.0	KDZ11WV	Y	11	○	10.76	11.22	5	15	5	120	0.5	0.5	8.5	KDZ12WV	Y	12	○	11.74	12.24	5	15	5	110	0.5	0.5	9.0	KDZ13WV	Y	13	○	12.91	13.49	5	15	5	110	0.5	0.5	10.0	KDZ15WV	Y	15	○	14.34	14.98	5	15	5	110	0.5	0.5	11.0	KDZ16WV	Y	16	○	15.85	16.51	5	18	5	150	0.5	0.5	12.0	KDZ18WV	Y	18	○	17.56	18.35	5	20	5	150	0.5	0.5	14.0	KDZ20WV	Y	20	○	19.52	20.39	5	25	5	200	0.5	0.5	15.0	KDZ22WV	Y	22	○	21.54	22.47	5	30	5	200	0.5	0.5	17.0	KDZ24WV	Y	24	○	23.72	24.78	5	40	5	200	0.5	0.5	19.0	KDZ27WV	-	A1	○	26.19	27.53	2	150	2	150	0.5	0.1	21.0	KDZ30WV	-	A2	○	29.19	30.69	2	200	2	200	0.5	0.1	23.0	KDZ33WV	-	A3	○	32.15	33.79	2	250	2	250	0.5	0.1	25.0	KDZ36WV	-	A4	○	35.07
KDZ2.2WV	-	2B	○		2.05	2.38	5	100	5	1000	0.5	120	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Y	2B	○		2.16	2.38									KDZ2.4WV	-	2C	○	2.28	2.60	5	100	5	1000	0.5	120	1.0	Y	2C	○	2.40	2.60	KDZ2.7WV	-	2D	○	2.50	2.90	5	110	5	1000	0.5	120	1.0	Y	2D	○	2.65	2.90	KDZ3.0WV	-	30	○	2.80	3.20	5	120	5	1000	0.5	50	1.0	Y	30	○	2.95	3.20	KDZ3.3WV	-	33	○	3.10	3.50	5	130	5	1000	0.5	20	1.0	Y	33	○	3.25	3.50	KDZ3.6WV	-	36	○	3.40	3.80	5	130	5	1000	0.5	10	1.0	Y	36	○	3.60	3.845	KDZ3.9WV	-	39	○	3.70	4.10	5	130	5	1000	0.5	10	1.0	Y	39	○	3.890	4.160	KDZ4.3WV	Y	43	○	4.17	4.43	5	130	5	1000	0.5	5	1.0	KDZ4.7WV	Y	47	○	4.55	4.75	5	120	5	1000	0.5	5	1.0	KDZ5.1WV	Y	51	○	4.98	5.20	5	70	5	1000	0.5	1	1.5	KDZ5.6WV	Y	56	○	5.49	5.73	5	40	5	900	0.5	1	2.5	KDZ6.2WV	Y	62	○	6.06	6.33	5	30	5	500	0.5	1	3.0	KDZ6.8WV	Y	68	○	6.65	6.93	5	25	5	150	0.5	0.5	5.0	KDZ7.5WV	Y	75	○	7.28	7.60	5	23	5	120	0.5	0.5	6.0	KDZ8.2WV	Y	82	○	8.02	8.36	5	20	5	120	0.5	0.5	6.5	KDZ9.1WV	Y	91	○	8.85	9.23	5	18	5	120	0.5	0.5	7.0	KDZ10WV	Y	10	○	9.77	10.21	5	15	5	120	0.5	0.5	8.0	KDZ11WV	Y	11	○	10.76	11.22	5	15	5	120	0.5	0.5	8.5	KDZ12WV	Y	12	○	11.74	12.24	5	15	5	110	0.5	0.5	9.0	KDZ13WV	Y	13	○	12.91	13.49	5	15	5	110	0.5	0.5	10.0	KDZ15WV	Y	15	○	14.34	14.98	5	15	5	110	0.5	0.5	11.0	KDZ16WV	Y	16	○	15.85	16.51	5	18	5	150	0.5	0.5	12.0	KDZ18WV	Y	18	○	17.56	18.35	5	20	5	150	0.5	0.5	14.0	KDZ20WV	Y	20	○	19.52	20.39	5	25	5	200	0.5	0.5	15.0	KDZ22WV	Y	22	○	21.54	22.47	5	30	5	200	0.5	0.5	17.0	KDZ24WV	Y	24	○	23.72	24.78	5	40	5	200	0.5	0.5	19.0	KDZ27WV	-	A1	○	26.19	27.53	2	150	2	150	0.5	0.1	21.0	KDZ30WV	-	A2	○	29.19	30.69	2	200	2	200	0.5	0.1	23.0	KDZ33WV	-	A3	○	32.15	33.79	2	250	2	250	0.5	0.1	25.0	KDZ36WV	-	A4	○	35.07	36.87	2	300	2	300	0.5	0.1	27.0										
KDZ2.4WV	-	2C	○		2.28	2.60	5	100	5	1000	0.5	120	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Y	2C	○		2.40	2.60									KDZ2.7WV	-	2D	○	2.50	2.90	5	110	5	1000	0.5	120	1.0	Y	2D	○	2.65	2.90	KDZ3.0WV	-	30	○	2.80	3.20	5	120	5	1000	0.5	50	1.0	Y	30	○	2.95	3.20	KDZ3.3WV	-	33	○	3.10	3.50	5	130	5	1000	0.5	20	1.0	Y	33	○	3.25	3.50	KDZ3.6WV	-	36	○	3.40	3.80	5	130	5	1000	0.5	10	1.0	Y	36	○	3.60	3.845	KDZ3.9WV	-	39	○	3.70	4.10	5	130	5	1000	0.5	10	1.0	Y	39	○	3.890	4.160	KDZ4.3WV	Y	43	○	4.17	4.43	5	130	5	1000	0.5	5	1.0	KDZ4.7WV	Y	47	○	4.55	4.75	5	120	5	1000	0.5	5	1.0	KDZ5.1WV	Y	51	○	4.98	5.20	5	70	5	1000	0.5	1	1.5	KDZ5.6WV	Y	56	○	5.49	5.73	5	40	5	900	0.5	1	2.5	KDZ6.2WV	Y	62	○	6.06	6.33	5	30	5	500	0.5	1	3.0	KDZ6.8WV	Y	68	○	6.65	6.93	5	25	5	150	0.5	0.5	5.0	KDZ7.5WV	Y	75	○	7.28	7.60	5	23	5	120	0.5	0.5	6.0	KDZ8.2WV	Y	82	○	8.02	8.36	5	20	5	120	0.5	0.5	6.5	KDZ9.1WV	Y	91	○	8.85	9.23	5	18	5	120	0.5	0.5	7.0	KDZ10WV	Y	10	○	9.77	10.21	5	15	5	120	0.5	0.5	8.0	KDZ11WV	Y	11	○	10.76	11.22	5	15	5	120	0.5	0.5	8.5	KDZ12WV	Y	12	○	11.74	12.24	5	15	5	110	0.5	0.5	9.0	KDZ13WV	Y	13	○	12.91	13.49	5	15	5	110	0.5	0.5	10.0	KDZ15WV	Y	15	○	14.34	14.98	5	15	5	110	0.5	0.5	11.0	KDZ16WV	Y	16	○	15.85	16.51	5	18	5	150	0.5	0.5	12.0	KDZ18WV	Y	18	○	17.56	18.35	5	20	5	150	0.5	0.5	14.0	KDZ20WV	Y	20	○	19.52	20.39	5	25	5	200	0.5	0.5	15.0	KDZ22WV	Y	22	○	21.54	22.47	5	30	5	200	0.5	0.5	17.0	KDZ24WV	Y	24	○	23.72	24.78	5	40	5	200	0.5	0.5	19.0	KDZ27WV	-	A1	○	26.19	27.53	2	150	2	150	0.5	0.1	21.0	KDZ30WV	-	A2	○	29.19	30.69	2	200	2	200	0.5	0.1	23.0	KDZ33WV	-	A3	○	32.15	33.79	2	250	2	250	0.5	0.1	25.0	KDZ36WV	-	A4	○	35.07	36.87	2	300	2	300	0.5	0.1	27.0																												
KDZ2.7WV	-	2D	○		2.50	2.90	5	110	5	1000	0.5	120	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Y	2D	○		2.65	2.90									KDZ3.0WV	-	30	○	2.80	3.20	5	120	5	1000	0.5	50	1.0	Y	30	○	2.95	3.20	KDZ3.3WV	-	33	○	3.10	3.50	5	130	5	1000	0.5	20	1.0	Y	33	○	3.25	3.50	KDZ3.6WV	-	36	○	3.40	3.80	5	130	5	1000	0.5	10	1.0	Y	36	○	3.60	3.845	KDZ3.9WV	-	39	○	3.70	4.10	5	130	5	1000	0.5	10	1.0	Y	39	○	3.890	4.160	KDZ4.3WV	Y	43	○	4.17	4.43	5	130	5	1000	0.5	5	1.0	KDZ4.7WV	Y	47	○	4.55	4.75	5	120	5	1000	0.5	5	1.0	KDZ5.1WV	Y	51	○	4.98	5.20	5	70	5	1000	0.5	1	1.5	KDZ5.6WV	Y	56	○	5.49	5.73	5	40	5	900	0.5	1	2.5	KDZ6.2WV	Y	62	○	6.06	6.33	5	30	5	500	0.5	1	3.0	KDZ6.8WV	Y	68	○	6.65	6.93	5	25	5	150	0.5	0.5	5.0	KDZ7.5WV	Y	75	○	7.28	7.60	5	23	5	120	0.5	0.5	6.0	KDZ8.2WV	Y	82	○	8.02	8.36	5	20	5	120	0.5	0.5	6.5	KDZ9.1WV	Y	91	○	8.85	9.23	5	18	5	120	0.5	0.5	7.0	KDZ10WV	Y	10	○	9.77	10.21	5	15	5	120	0.5	0.5	8.0	KDZ11WV	Y	11	○	10.76	11.22	5	15	5	120	0.5	0.5	8.5	KDZ12WV	Y	12	○	11.74	12.24	5	15	5	110	0.5	0.5	9.0	KDZ13WV	Y	13	○	12.91	13.49	5	15	5	110	0.5	0.5	10.0	KDZ15WV	Y	15	○	14.34	14.98	5	15	5	110	0.5	0.5	11.0	KDZ16WV	Y	16	○	15.85	16.51	5	18	5	150	0.5	0.5	12.0	KDZ18WV	Y	18	○	17.56	18.35	5	20	5	150	0.5	0.5	14.0	KDZ20WV	Y	20	○	19.52	20.39	5	25	5	200	0.5	0.5	15.0	KDZ22WV	Y	22	○	21.54	22.47	5	30	5	200	0.5	0.5	17.0	KDZ24WV	Y	24	○	23.72	24.78	5	40	5	200	0.5	0.5	19.0	KDZ27WV	-	A1	○	26.19	27.53	2	150	2	150	0.5	0.1	21.0	KDZ30WV	-	A2	○	29.19	30.69	2	200	2	200	0.5	0.1	23.0	KDZ33WV	-	A3	○	32.15	33.79	2	250	2	250	0.5	0.1	25.0	KDZ36WV	-	A4	○	35.07	36.87	2	300	2	300	0.5	0.1	27.0																																														
KDZ3.0WV	-	30	○		2.80	3.20	5	120	5	1000	0.5	50	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Y	30	○		2.95	3.20									KDZ3.3WV	-	33	○	3.10	3.50	5	130	5	1000	0.5	20	1.0	Y	33	○	3.25	3.50	KDZ3.6WV	-	36	○	3.40	3.80	5	130	5	1000	0.5	10	1.0	Y	36	○	3.60	3.845	KDZ3.9WV	-	39	○	3.70	4.10	5	130	5	1000	0.5	10	1.0	Y	39	○	3.890	4.160	KDZ4.3WV	Y	43	○	4.17	4.43	5	130	5	1000	0.5	5	1.0	KDZ4.7WV	Y	47	○	4.55	4.75	5	120	5	1000	0.5	5	1.0	KDZ5.1WV	Y	51	○	4.98	5.20	5	70	5	1000	0.5	1	1.5	KDZ5.6WV	Y	56	○	5.49	5.73	5	40	5	900	0.5	1	2.5	KDZ6.2WV	Y	62	○	6.06	6.33	5	30	5	500	0.5	1	3.0	KDZ6.8WV	Y	68	○	6.65	6.93	5	25	5	150	0.5	0.5	5.0	KDZ7.5WV	Y	75	○	7.28	7.60	5	23	5	120	0.5	0.5	6.0	KDZ8.2WV	Y	82	○	8.02	8.36	5	20	5	120	0.5	0.5	6.5	KDZ9.1WV	Y	91	○	8.85	9.23	5	18	5	120	0.5	0.5	7.0	KDZ10WV	Y	10	○	9.77	10.21	5	15	5	120	0.5	0.5	8.0	KDZ11WV	Y	11	○	10.76	11.22	5	15	5	120	0.5	0.5	8.5	KDZ12WV	Y	12	○	11.74	12.24	5	15	5	110	0.5	0.5	9.0	KDZ13WV	Y	13	○	12.91	13.49	5	15	5	110	0.5	0.5	10.0	KDZ15WV	Y	15	○	14.34	14.98	5	15	5	110	0.5	0.5	11.0	KDZ16WV	Y	16	○	15.85	16.51	5	18	5	150	0.5	0.5	12.0	KDZ18WV	Y	18	○	17.56	18.35	5	20	5	150	0.5	0.5	14.0	KDZ20WV	Y	20	○	19.52	20.39	5	25	5	200	0.5	0.5	15.0	KDZ22WV	Y	22	○	21.54	22.47	5	30	5	200	0.5	0.5	17.0	KDZ24WV	Y	24	○	23.72	24.78	5	40	5	200	0.5	0.5	19.0	KDZ27WV	-	A1	○	26.19	27.53	2	150	2	150	0.5	0.1	21.0	KDZ30WV	-	A2	○	29.19	30.69	2	200	2	200	0.5	0.1	23.0	KDZ33WV	-	A3	○	32.15	33.79	2	250	2	250	0.5	0.1	25.0	KDZ36WV	-	A4	○	35.07	36.87	2	300	2	300	0.5	0.1	27.0																																																																
KDZ3.3WV	-	33	○		3.10	3.50	5	130	5	1000	0.5	20	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Y	33	○		3.25	3.50									KDZ3.6WV	-	36	○	3.40	3.80	5	130	5	1000	0.5	10	1.0	Y	36	○	3.60	3.845	KDZ3.9WV	-	39	○	3.70	4.10	5	130	5	1000	0.5	10	1.0	Y	39	○	3.890	4.160	KDZ4.3WV	Y	43	○	4.17	4.43	5	130	5	1000	0.5	5	1.0	KDZ4.7WV	Y	47	○	4.55	4.75	5	120	5	1000	0.5	5	1.0	KDZ5.1WV	Y	51	○	4.98	5.20	5	70	5	1000	0.5	1	1.5	KDZ5.6WV	Y	56	○	5.49	5.73	5	40	5	900	0.5	1	2.5	KDZ6.2WV	Y	62	○	6.06	6.33	5	30	5	500	0.5	1	3.0	KDZ6.8WV	Y	68	○	6.65	6.93	5	25	5	150	0.5	0.5	5.0	KDZ7.5WV	Y	75	○	7.28	7.60	5	23	5	120	0.5	0.5	6.0	KDZ8.2WV	Y	82	○	8.02	8.36	5	20	5	120	0.5	0.5	6.5	KDZ9.1WV	Y	91	○	8.85	9.23	5	18	5	120	0.5	0.5	7.0	KDZ10WV	Y	10	○	9.77	10.21	5	15	5	120	0.5	0.5	8.0	KDZ11WV	Y	11	○	10.76	11.22	5	15	5	120	0.5	0.5	8.5	KDZ12WV	Y	12	○	11.74	12.24	5	15	5	110	0.5	0.5	9.0	KDZ13WV	Y	13	○	12.91	13.49	5	15	5	110	0.5	0.5	10.0	KDZ15WV	Y	15	○	14.34	14.98	5	15	5	110	0.5	0.5	11.0	KDZ16WV	Y	16	○	15.85	16.51	5	18	5	150	0.5	0.5	12.0	KDZ18WV	Y	18	○	17.56	18.35	5	20	5	150	0.5	0.5	14.0	KDZ20WV	Y	20	○	19.52	20.39	5	25	5	200	0.5	0.5	15.0	KDZ22WV	Y	22	○	21.54	22.47	5	30	5	200	0.5	0.5	17.0	KDZ24WV	Y	24	○	23.72	24.78	5	40	5	200	0.5	0.5	19.0	KDZ27WV	-	A1	○	26.19	27.53	2	150	2	150	0.5	0.1	21.0	KDZ30WV	-	A2	○	29.19	30.69	2	200	2	200	0.5	0.1	23.0	KDZ33WV	-	A3	○	32.15	33.79	2	250	2	250	0.5	0.1	25.0	KDZ36WV	-	A4	○	35.07	36.87	2	300	2	300	0.5	0.1	27.0																																																																																		
KDZ3.6WV	-	36	○		3.40	3.80	5	130	5	1000	0.5	10	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Y	36	○		3.60	3.845									KDZ3.9WV	-	39	○	3.70	4.10	5	130	5	1000	0.5	10	1.0	Y	39	○	3.890	4.160	KDZ4.3WV	Y	43	○	4.17	4.43	5	130	5	1000	0.5	5	1.0	KDZ4.7WV	Y	47	○	4.55	4.75	5	120	5	1000	0.5	5	1.0	KDZ5.1WV	Y	51	○	4.98	5.20	5	70	5	1000	0.5	1	1.5	KDZ5.6WV	Y	56	○	5.49	5.73	5	40	5	900	0.5	1	2.5	KDZ6.2WV	Y	62	○	6.06	6.33	5	30	5	500	0.5	1	3.0	KDZ6.8WV	Y	68	○	6.65	6.93	5	25	5	150	0.5	0.5	5.0	KDZ7.5WV	Y	75	○	7.28	7.60	5	23	5	120	0.5	0.5	6.0	KDZ8.2WV	Y	82	○	8.02	8.36	5	20	5	120	0.5	0.5	6.5	KDZ9.1WV	Y	91	○	8.85	9.23	5	18	5	120	0.5	0.5	7.0	KDZ10WV	Y	10	○	9.77	10.21	5	15	5	120	0.5	0.5	8.0	KDZ11WV	Y	11	○	10.76	11.22	5	15	5	120	0.5	0.5	8.5	KDZ12WV	Y	12	○	11.74	12.24	5	15	5	110	0.5	0.5	9.0	KDZ13WV	Y	13	○	12.91	13.49	5	15	5	110	0.5	0.5	10.0	KDZ15WV	Y	15	○	14.34	14.98	5	15	5	110	0.5	0.5	11.0	KDZ16WV	Y	16	○	15.85	16.51	5	18	5	150	0.5	0.5	12.0	KDZ18WV	Y	18	○	17.56	18.35	5	20	5	150	0.5	0.5	14.0	KDZ20WV	Y	20	○	19.52	20.39	5	25	5	200	0.5	0.5	15.0	KDZ22WV	Y	22	○	21.54	22.47	5	30	5	200	0.5	0.5	17.0	KDZ24WV	Y	24	○	23.72	24.78	5	40	5	200	0.5	0.5	19.0	KDZ27WV	-	A1	○	26.19	27.53	2	150	2	150	0.5	0.1	21.0	KDZ30WV	-	A2	○	29.19	30.69	2	200	2	200	0.5	0.1	23.0	KDZ33WV	-	A3	○	32.15	33.79	2	250	2	250	0.5	0.1	25.0	KDZ36WV	-	A4	○	35.07	36.87	2	300	2	300	0.5	0.1	27.0																																																																																																				
KDZ3.9WV	-	39	○		3.70	4.10	5	130	5	1000	0.5	10	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Y	39	○		3.890	4.160									KDZ4.3WV	Y	43	○	4.17	4.43	5	130	5	1000	0.5	5	1.0	KDZ4.7WV	Y	47	○	4.55	4.75	5	120	5	1000	0.5	5	1.0	KDZ5.1WV	Y	51	○	4.98	5.20	5	70	5	1000	0.5	1	1.5	KDZ5.6WV	Y	56	○	5.49	5.73	5	40	5	900	0.5	1	2.5	KDZ6.2WV	Y	62	○	6.06	6.33	5	30	5	500	0.5	1	3.0	KDZ6.8WV	Y	68	○	6.65	6.93	5	25	5	150	0.5	0.5	5.0	KDZ7.5WV	Y	75	○	7.28	7.60	5	23	5	120	0.5	0.5	6.0	KDZ8.2WV	Y	82	○	8.02	8.36	5	20	5	120	0.5	0.5	6.5	KDZ9.1WV	Y	91	○	8.85	9.23	5	18	5	120	0.5	0.5	7.0	KDZ10WV	Y	10	○	9.77	10.21	5	15	5	120	0.5	0.5	8.0	KDZ11WV	Y	11	○	10.76	11.22	5	15	5	120	0.5	0.5	8.5	KDZ12WV	Y	12	○	11.74	12.24	5	15	5	110	0.5	0.5	9.0	KDZ13WV	Y	13	○	12.91	13.49	5	15	5	110	0.5	0.5	10.0	KDZ15WV	Y	15	○	14.34	14.98	5	15	5	110	0.5	0.5	11.0	KDZ16WV	Y	16	○	15.85	16.51	5	18	5	150	0.5	0.5	12.0	KDZ18WV	Y	18	○	17.56	18.35	5	20	5	150	0.5	0.5	14.0	KDZ20WV	Y	20	○	19.52	20.39	5	25	5	200	0.5	0.5	15.0	KDZ22WV	Y	22	○	21.54	22.47	5	30	5	200	0.5	0.5	17.0	KDZ24WV	Y	24	○	23.72	24.78	5	40	5	200	0.5	0.5	19.0	KDZ27WV	-	A1	○	26.19	27.53	2	150	2	150	0.5	0.1	21.0	KDZ30WV	-	A2	○	29.19	30.69	2	200	2	200	0.5	0.1	23.0	KDZ33WV	-	A3	○	32.15	33.79	2	250	2	250	0.5	0.1	25.0	KDZ36WV	-	A4	○	35.07	36.87	2	300	2	300	0.5	0.1	27.0																																																																																																																						
KDZ4.3WV	Y	43	○		4.17	4.43	5	130	5	1000	0.5	5	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ4.7WV	Y	47	○		4.55	4.75	5	120	5	1000	0.5	5	1.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ5.1WV	Y	51	○		4.98	5.20	5	70	5	1000	0.5	1	1.5																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ5.6WV	Y	56	○		5.49	5.73	5	40	5	900	0.5	1	2.5																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ6.2WV	Y	62	○		6.06	6.33	5	30	5	500	0.5	1	3.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ6.8WV	Y	68	○		6.65	6.93	5	25	5	150	0.5	0.5	5.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ7.5WV	Y	75	○		7.28	7.60	5	23	5	120	0.5	0.5	6.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ8.2WV	Y	82	○		8.02	8.36	5	20	5	120	0.5	0.5	6.5																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ9.1WV	Y	91	○		8.85	9.23	5	18	5	120	0.5	0.5	7.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ10WV	Y	10	○		9.77	10.21	5	15	5	120	0.5	0.5	8.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ11WV	Y	11	○		10.76	11.22	5	15	5	120	0.5	0.5	8.5																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ12WV	Y	12	○		11.74	12.24	5	15	5	110	0.5	0.5	9.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ13WV	Y	13	○		12.91	13.49	5	15	5	110	0.5	0.5	10.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ15WV	Y	15	○		14.34	14.98	5	15	5	110	0.5	0.5	11.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ16WV	Y	16	○		15.85	16.51	5	18	5	150	0.5	0.5	12.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ18WV	Y	18	○		17.56	18.35	5	20	5	150	0.5	0.5	14.0																																																																																																																																																																																																																																																																																																																																																																																																																																		
KDZ20WV	Y	20	○	19.52	20.39	5	25	5	200	0.5	0.5	15.0																																																																																																																																																																																																																																																																																																																																																																																																																																			
KDZ22WV	Y	22	○	21.54	22.47	5	30	5	200	0.5	0.5	17.0																																																																																																																																																																																																																																																																																																																																																																																																																																			
KDZ24WV	Y	24	○	23.72	24.78	5	40	5	200	0.5	0.5	19.0																																																																																																																																																																																																																																																																																																																																																																																																																																			
KDZ27WV	-	A1	○	26.19	27.53	2	150	2	150	0.5	0.1	21.0																																																																																																																																																																																																																																																																																																																																																																																																																																			
KDZ30WV	-	A2	○	29.19	30.69	2	200	2	200	0.5	0.1	23.0																																																																																																																																																																																																																																																																																																																																																																																																																																			
KDZ33WV	-	A3	○	32.15	33.79	2	250	2	250	0.5	0.1	25.0																																																																																																																																																																																																																																																																																																																																																																																																																																			
KDZ36WV	-	A4	○	35.07	36.87	2	300	2	300	0.5	0.1	27.0																																																																																																																																																																																																																																																																																																																																																																																																																																			

Note) ○ : AEC-Q Qualified

■ 500mW Zener Diode

Type No.	Mark	AEC-Q	P _D (mW)	V _Z (V)			I _R (μA)		PKG
				Min.	Max.	@I _Z (mA)	Max.	@V _R (V)	
USFZ4.3V	43	○	500	3.9	4.8	10	10	1.0	USF
USFZ4.7V	47	○		4.3	5.2	10	10	1.0	
USFZ5.1V	51	○		4.6	5.6	10	10	1.5	
USFZ5.6V	56	○		5.1	6.1	10	10	2.5	
USFZ6.2V	62	○		5.6	6.8	10	10	3.0	
USFZ6.8V	68	○		6.2	7.4	10	10	3.5	
USFZ7.5V	75	○		6.8	8.3	10	10	4.5	
USFZ8.2V	82	○		7.4	9	10	10	4.9	
USFZ9.1V	91	○		8.2	10	10	10	5.5	
USFZ10V	10	○		9	11	10	10	6.0	
USFZ11V+	11	○		9.9	12.1	10	10	7.0	
USFZ12V+	12	○		10.8	13.2	10	10	8.0	
USFZ13V+	13	○		11.7	14.3	10	10	9.0	
USFZ15V	15	○		13.5	16.5	10	10	10.0	
USFZ16V+	16	○		14.4	17.6	10	10	11.0	
USFZ18V	18	○		16.2	19.8	10	10	12.0	
USFZ20V	20	○		18	22	10	10	14.0	
USFZ22V+	22	○		19.8	24.2	10	10	15.0	
USFZ24V	24	○		21.6	26.4	10	10	16.0	
USFZ27V+	27	○		24.3	29.7	10	10	19.0	
USFZ30V+	30	○	27	33	10	10	21.0		
USFZ33V	33	○	29.7	36.3	10	10	23.0		
USFZ36V	36	○	32.4	39.6	10	10	25.0		

Note) ○ : AEC-Q Qualified
Note) + : Irregular Production

DIODE

Zener Diode

■ 1W Zener Diode

TypeNo.	Mark	AEC-Q	P _D (W)	V _Z (V)			I _R (μA)		PKG
				Min.	Max.	@I _Z (mA)	Max.	@V _R (V)	
SMFZ4.3V	ZZJ	○	1	4.30	4.8	40	20	1.0	SMF
SMFZ4.7V	ZZK	○		4.70	5.2	40	20	1.0	
SMFZ5.1V	ZZL	○		5.10	5.7	40	20	1.0	
SMFZ5.6V	ZZM	○		5.60	6.3	40	20	1.5	
SMFZ6.2V	ZZN	○		6.20	7	40	20	3.0	
SMFZ6.8V	ZZP	○		6.80	7.7	40	20	3.5	
SMFZ7.5V	ZZQ	○		7.50	8.4	40	20	4.0	
SMFZ8.2V	ZZR	○		8.20	9.3	40	20	5.0	
SMFZ9.1V	ZZS	○		9.10	10.2	40	20	6.0	
SMFZ10V	Z10	○		10.00	11.2	40	10	7.0	
SMFZ11V	Z11	○		11.00	12.3	20	10	8.0	
SMFZ12V	Z12	○		12.00	13.5	20	10	9.0	
SMFZ13V	Z13	○		13.30	15	20	10	10.0	
SMFZ15V	Z15	○		14.70	16.5	20	10	11.0	
SMFZ16V	Z16	○		16.20	18.3	20	10	12.0	
SMFZ18V	Z18	○		18.00	20.3	20	10	13.0	
SMFZ20V	Z20	○		20.00	22.4	20	10	15.0	
SMFZ22V	Z22	○		22.00	24.5	10	10	17.0	
SMFZ24V	Z24	○		24.00	27.6	10	10	19.0	
SMFZ27V	Z27	○		27.00	30.8	10	10	21.0	
SMFZ30V	Z30	○	30.00	34	10	10	23.0		
SMFZ33V	Z33	○	33.00	37	10	10	25.0		
SMFZ36V	Z36	○	36.00	40	10	10	27.0		
SMAZ4.3V	Z4.3	○	1	4.30	4.8	40	20	1.0	SMA
SMAZ4.7V	Z4.7	○		4.70	5.2	40	20	1.0	
SMAZ5.1V	Z5.1	○		5.10	5.7	40	20	1.0	
SMAZ5.6V	Z5.6	○		5.60	6.3	40	20	1.5	
SMAZ6.2V	Z6.2	○		6.20	7.0	40	20	3.0	
SMAZ6.8V	Z6.8	○		6.80	7.7	40	20	3.5	
SMAZ7.5V	Z7.5	○		7.50	8.4	40	20	4.0	
SMAZ8.2V	Z8.2	○		8.20	9.3	40	20	5.0	
SMAZ9.1V	Z9.1	○		9.10	10.2	40	20	6.0	
SMAZ10V	Z10	○		10.00	11.2	40	10	7.0	
SMAZ11V	Z11	○		11.00	12.3	20	10	8.0	
SMAZ12V	Z12	○		12.00	13.5	20	10	9.0	
SMAZ13V	Z13	○		13.30	15.0	20	10	10.0	
SMAZ15V	Z15	○		14.70	16.5	20	10	11.0	
SMAZ16V	Z16	○		16.20	18.3	20	10	12.0	
SMAZ18V	Z18	○		18.00	20.3	20	10	13.0	
SMAZ20V	Z20	○		20.00	22.4	20	10	15.0	
SMAZ22V	Z22	○		22.00	24.5	10	10	17.0	
SMAZ24V	Z24	○		24.00	27.6	10	10	19.0	
SMAZ27V	Z27	○		27.00	30.8	10	10	21.0	
SMAZ30V	Z30	○	30.00	34.0	10	10	23.0		
SMAZ33V	Z33	○	33.00	37.0	10	10	25.0		
SMAZ36V	Z36	○	36.00	40.0	10	10	27.0		

Note) ○ : AEC-Q Qualified

■ High Voltage Zener Diode

TypeNo.	Mark	AEC-Q	P _D (mW)	V _Z (V)			Z _Z (Ω)		Z _{ZK} (Ω)		I _R (μA)		PKG
				Min.	Max.	@I _Z (mA)	Max.	@I _Z (mA)	Max.	@I _Z (mA)	Max.	@V _R (V)	
KDZ39VL	3A	○	200	38.03	39.98	2	300	2	450	0.5	0.05	30	USC
KDZ82V	J	●		74	90	1	700	1	700	0.5	0.1	65	
KDZ100V	AQ	○		95.0	105	1	700	1	-	-	0.2	76	
★KDZ100VV	AW	○		95.0	105	1	700	1	-	-	0.2	76	
KDZ110V	N	●		104	116	1	700	1	-	-	0.1	94	
KDZ150V	K	●		142	158	1	700	1	-	-	0.1	128	
KDZ160V	V	●		152	168	1	700	1	-	-	0.1	136	
KDZ200V	L	●		190	210	1	700	1	-	-	0.1	170	
KDZ100VL	LL	●		95	105	1	-	-	-	-	0.2	76	
KDZ150VL	LM	●		142	158	1	-	-	-	-	0.1	128	
KDZ200VL	LN	●		190	210	1	-	-	-	-	0.1	170	
KDZ110WVA	RV5	●		400	104	116	1	700	1	-	-	0.1	
KDZ150WVA	TV5	●	142		158	1	700	1	-	-	0.1	128	
KDZ160WVA	SV5	●	152		168	1	700	1	-	-	0.1	136	
KDZ200WVA	UV5	●	190		210	1	700	1	-	-	0.1	170	
Z02W100V	10A	○	200	95.0	105	1	700	1	-	-	0.2	76	SOT-23

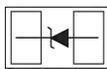
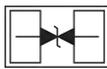
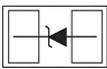
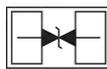
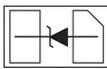
Note) ★ : Bi-directional Zener Diode

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

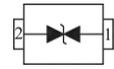
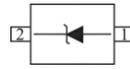
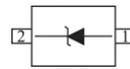
■ Series Type Zener Diode

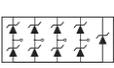
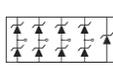
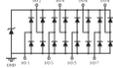
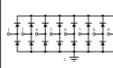
TypeNo.	Mark	AEC-Q	P _D (mW)	V _Z (V)			I _R (μA)		PKG
				Min.	Max.	@I _Z (mA)	Max.	@V _R (V)	
Z02W7.5VS	Z7	●	200	7.23	7.66	5	0.5	6	SOT-23
Z02W9.1VS	Z9	●	200	8.8	9.7	5	0.5	7	

Note) ● : Preparing for qualification of AEC-Q

Electrical Characteristics		Single Type (Leadless-Type)				
		ELP-2		ULP-2		DFN1610
						
V _{RWM} [V]	P _{PK} [W]	0.6*0.3mm		1.0*0.6mm		1.6*1.0mm
3	18		PS03VBEL2D ^{LOW}		PS03VBUL2 ^{LOW}	
	50	PS03TSEL2A ^{LOW}			PS03TBUL2 ^{LOW}	
	65		PD03TCBEL2D ^{LOW}	PS03PSUL2		
	70		PS03CBEL2A		PS03CBUL2	
	280			PG03HSUL2		
5	20		PS05VBEL2D ^{LOW}		PS05VBUL2 ^{LOW}	
	30		PG05DBEL2A			
	60	PS05TSEL2A ^{LOW}	PS05CBEL2A PS05TBEL2D ^{LOW}	PS05SUL2 ^{LOW}	PS05TBUL2 ^{LOW}	
	65		PD05TCBEL2D ^{LOW}			
	75				PS05CBUL2	
	100			PG05FSUL2		
	120				PS05TCBUL2 ^{LOW}	
	200			PG05GSUL2	PS05DBUL2	
	280			PG05HSUL2		
	1240					PG05KS1610D2
7	130				PG07DBUL2	
8	260			PG08GSUL2		
	1480					PG08JS1610D2
9	1150					PG09HS1610D2
12	160				PG12DBUL2	
	1050					PG12HS1610D2
15	990					PG15HS1610D2
18	825					PG18HS1610D2
20	800					PG20GS1610D2
22	940					PG22GS1610D2
24	120				PG24DBUL2	
	900					PG24GS1610D2
26	830					PG26GS1610D2
36	150			PG36DSUL2		

Note) ^{LOW}: Low Capacitance Device ($\leq 1\text{pF}$)

Electrical Characteristics		Single Type (SMD-Type)						
		TFSC		ESC		USC		USF
								
V _{RWM} [V]	P _{PK} [W]	0.8*0.6mm		1.2*0.8mm		1.7*1.25mm		1.9*1.25mm
3	50			PG03FSESC				
5	30			PG05BSESC				
	50		PG05DBTFC		PG05FBESC			
	75				PS05CBESC			
	80	PG05FSTFC						
	100			PG05FSESC				
	150				PS05DBESC			
	200		PS05DBTFC					
	350					PG05HSUSC	PG05GBUSC	
10	1000						PG10HSUSF	
12	350					PG12GSUSC	PG12FBUSC	
15	165					PG15FSUSC		
	220						PG15EBUSC	
	350					PG15GSUSC	PG15FBUSC	
24	190						PG24DBUSC	
	350					PG24GSUSC	PG24EBUSC	
33	180	PG33DSTFC						
36	150			PG36DSESC				
	600					PG36FSUSC		
48	1200					PG48FSUSC		
15, 24	160,200						PG1524DBUSC	

Electrical Characteristics		Array Type (Leadless-type)				Array Type (SMD-type)				
		ULP-9	ULP-10	DFN5515-14L	DFN3810-9L	ESM	USM	SOT-23		
										
V _{RWM} [V]	P _{PK} [W]	2.0*1.0mm	2.5*1.0mm	5.5*1.5mm	3.8*1.0mm	1.6*0.85mm	2.0*1.25mm	2.93*1.3mm		
3.3	55				PD03TV3810D9					
5	10			PD05TV5515D14			PG05BAUSM			
	60	PS05TVUL9 ^{LOW}				PG05EAESM				
	85		PS05SVU10 ^{LOW}							
	100									
	350							PG05HAS23		
12	350							PG12GAS23		PG12GCS23
15	140							PG15ECS23		
24	120								PG24DAS23	
	350							PG24FAS23	PG24EAS23	
36	550							PG36FSS23		
7,12	400								PG712FBS23	
60	240		PS60CAU10 (Bi-directional)							

Note) ^{LOW}: Low Capacitance Device (≤1pF)

Electrical Characteristics		Array Type (SMD-type)		
		TES6	USV	TS6
				
V_{RWM} [V]	P_{PK} [W]	1.6*1.2mm	2.0*2.1mm	2.9*1.6mm
5	150	PG05GXTE6		
	200		PG05GBUSV	
24	350			PG24FBTS6

DIODE

TVS Diode

General Purpose TVS (Single Type)

Type No.	Mark	AEC-Q	Max. Ratings		V _{RWM} (V)	V _{BR} (V)		I _R (μA)		V _C (V)		C _T (pF)	ESD (kV)	PKG
			P _{PK} (W)	I _{PP} (A)	Max.	Min.	@I _R (mA)	Max.	@V _R (V)	Max.	@I _{PP} (A)	Max.	Contact	
PS03CBEL2A	M	○	70	7	3.3	3.4	50	0.05	3.3	10	7	9	20	ELP-2A
PG05DBEL2A	B	○	30	2	5	5.8	1	0.1	5	15	2	9	15	
PS05CBEL2A	T	○	60	5	5	5.5	50	0.05	5	12	5	9	30	
PS03PSUL2	K	●	65	7	3.3	4.5	1	0.1	3.3	9.3	7	2.0	30	ULP-2
PG03HSUL2	3D	○	280	30	3.3	4.5	1	1	3.3	7.8 (Typ)	30	300 (Typ)	30	
PG05FSUL2	5P	○	100	10	5	6	1	5	5	10	10	80	15	
PG05GSUL2	TA	○	200	16	5	6	1	5	5	12.5	16	160	30	
PG05HSUL2	5D	○	280	25	5.5	6	1	1	5.5	9.2 (Typ)	25	240 (Typ)	30	
PG08GSUL2	SH	○	260	20	7.6	7.9	1	0.1	7.6	13	20	200	30	
PG36DSUL2	DS	○	150	2.5	36	38	1	0.1	36	60	2.5	20	12	
PS03CBUL2	Z	○	70	7	3.3	3.4	50	0.05	3.3	10	7	9	20	ULP-2
PS05CBUL2	ZZ	○	75	6	5	5.5	50	0.05	5	12.5	6	9	30	
PS05DBUL2	H	○	200	12	5	5.3	50	0.1	5	17	12	25	30	
PG07DBUL2	I	○	130	7	7	10	1	0.1	7	14	7	30	20	
PG12DBUL2	HH	○	150	7	12	14.8	5	0.1	12	27	7	25	20	
PG24DBUL2	II	○	120	3	24	25.9	1	0.1	24	40	3	15	20	
PG05KS1610D2	KA	●	1240	80	5	7	1	0.1	5	15.5	80	850	30	DFN1610
PG08JS1610D2	KP	●	1480	80	7.6	7.9	1	0.1	7.6	18.5	80	800	30	
PG09HS1610D2	KQ	●	1150	50	9	10	1	0.1	9	23	50	400	30	
PG12HS1610D2	KH	●	1050	36	12	14	1	0.1	12	29	36	300	30	
PG15HS1610D2	KC	●	990	30	15	17.5	1	0.1	15	33	30	250	30	
PG18HS1610D2	KD	●	825	25	18	20	1	0.1	18	33	25	250	30	
PG20GS1610D2	KJ	●	800	23	20	22	1	0.1	20	35	23	200	30	
PG22GS1610D2	KF	●	940	23	22	24.5	1	0.1	22	41	23	250	30	
PG24GS1610D2	KK	●	900	20	24	28	1	0.1	24	45	20	200	30	
PG26GS1610D2	KL	●	830	18	26	29	1	0.1	26	46	18	180	30	

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

■ General Purpose TVS (Single Type)

Type No.	Mark	AEC-Q	Max. Ratings		V _{RWM} (V)	V _{BR} (V)		I _R (μA)		V _C (V)		C _T (pF)	ESD (kV)	PKG		
			P _{PK} (W)	I _{PP} (A)	Max.	Min.	@I _t (mA)	Max.	@V _R (V)	Max.	@I _{PP} (A)	Max.	Contact			
PG05FSTFC		E1	○	80	5	5	6	1	5	5	16	5	70	30	TFSC	
PG33DSTFC		TF	○	180	3	33	35	1	1	33	55	2.5	20	12		
PG05DBTFC		6	○	80	5	5	5.8	1	1	5	17	5	25	8	TFSC	
PS05DBTFC		DB	○	200	12	5	6	-	0.1	5	17	12	25	30		
PG03FSESC		3S	○	50	5	3.3	4	1	20	3.3	10.9	5	100	8	ESC	
PG05FSESC		5S	○	100	10	5	6	1	5	5	10	10	80	8		
PG05BSESC		D2	○	30	1.6	5	6.65	5	0.5	5	18	1.6	5	8		
PG36DSESC		DS	○	150	2.5	36	38	1	0.1	36	60	2.5	20	12		
PG05FBESC		5B	○	80	5	5	5.8	1	5	5	17	5	80	8	ESC	
PS05DBESC		D5	●	150	12	5	5.3	50	0.1	5	14	12	25	30		
PS05CBESC		C5	○	75	6	5	5.5	50	0.05	5	12.5	6	9	30		
PG05HSUSC		5H	○	350	24	5	6	1	10	5	14.5	24	350	8	USC	
PG12GSUSC		L	○	350	15	12	13.8	1	1	12	25	15	150	20		
PG15FSUSC		PJ	○	165	6	15	17.1	1	0.1	15	27.5	6	60	30		
PG15GSUSC		SD	○	350	12	15	16.7	1	1	15	29	12	150	8		
PG24GSUSC		T	○	350	8	24	27.2	1	1	24	45	8	200	20		
PG36FSUSC		6F	○	600	10	36	42	1	0.1	36	60	10	100	30		
PG48FSUSC		8F	○	1,200	12	48	55	1	0.1	48	100	12	100	30		
PG05GBUSC		5G	○	350	24	5	6	1	10	5	14.5	24	200	8	USC	
PG12FBUSC		2	○	350	15	12	13.8	1	1	12	25	15	100	20		
PG15EBUSC		PC	○	220	5	15	17.1	1	0.05	15	44	5	32	30		
PG15FBUSC		BD	○	350	12	15	16.7	1	1	15	29	12	75	8		
PG1524DBUSC		D1	PA	○	160	5	15	17	1	0.1	15	32	5	17		30
					D2	200	4	24	25	1	0.1	24	50	4		17
PG24DBUSC		PB	○	190	3.8	24	25.4	1	0.1	24	50	3.8	18	30		
PG24EBUSC		4E	○	350	8	24	27.2	1	1	24	45	8	50	20		

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

TVS Diode

■ General Purpose TVS (Single Type)

Type No.		Mark	AEC-Q	Max. Ratings		$V_{RWM}(V)$	$V_{BR}(V)$		$I_R(\mu A)$		$V_C(V)$		$C_T(pF)$	ESD(kV)	PKG
				$P_{PK}(W)$	$I_{PP}(A)$	Max.	Min.	@ I_t (mA)	Max.	@ $V_R(V)$	Max.	@ $I_{PP}(A)$	Max.	Contact	
PG10HSUSF		HS	○	1000	43	10	12	1	1	10	24	43	500	30	USF

Note) ○ : AEC-Q Qualified

■ General Purpose TVS (Array Type)

Type No.	Mark	AEC-Q	Max. Ratings		V _{RWM} (V)		V _{BR} (V)		I _R (μA)		V _C (V)		C _T (pF)	ESD (kV)	PKG
			P _{PK} (W)	I _{PP} (A)	Max.	Min.	@I _t (mA)	Max.	@V _R (V)	Max.	@I _{PP} (A)	Max.	Contact		
PG05EAESM		D4	○	80	6.7	5	6.46	5	1	5	17	5	40	8	ESM
PG05BAUSM		BA	○	30	1.6	5	6.65	5	0.5	5	18	1.6	5	8	USM
PG05HAS23		5HA	○	350	24	5	6	1	20	5	14.5	24	400	8	SOT-23
PG12GAS23		12G	○	350	15	12	13.3	1	1	12	25	15	150	8	
PG24FAS23		24F	○	350	8	24	26.7	1	1	24	43.5	8	60	8	
PG36FSS23		E30	●	550	9	36	42	1	0.1	36	61	9	50	30	
PG12GCS23		12	○	350	15	12	13.3	1	0.1	12	25	15	120	8	
PG15ECS23		QC	○	140	5.2	15	17.1	1	0.1	15	26.9	5	50	30	
PG712FBS23	D1	712	○	400	17	7	7.5	1	20	7	12	17	75	8	
	D2					12	13.3	1	20	12	26	17	75	8	
PG24DAS23		QD	○	120	3	24	25	1	0.1	24	40	3	17	30	
PG24EAS23		QA	●	330	7	24	26	1	0.1	24	47	7	30	30	
PG05GBUSV		5G	○	200	12	5	6	1	10	5	16	12	175	30	USV
PG24FBTS6		4F	○	350	8	24	27	1	1	24	44	8	75	8	TS6
PS60CAU10		60CA	○	240	2	60	65	1	0.1	60	120	2	10.5	30	ULP-10
PG05GXTE6		5X	○	150	10	5	6.3	1	1	5	14.5	10	100	8	TES6

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

TVS Diode

Low Cap TVS (Single / Array Type)

Type No.	Mark	AEC-Q	Max. Ratings		V _{RWM} (V)		V _{BR} (V)		I _R (μA)		V _C (V)		C _T (pF)	ESD (kV)	PKG
			P _{PK} (W)	I _{PP} (A)	Max.	Min.	@I _t (mA)	Max.	@V _R (V)	Max.	@I _{PP} (A)	Max.	Contact		
PS03TSEL2A		H	○	50	4.0	3.3	5.0	-	0.1	3.3	14	4	0.9	20	ELP-2A
PS05TSEL2A		E1	○	60	4.0	5.0	6.0	-	0.1	5.0	15	4	0.9	20	
PS03VBEL2D		C	●	18	1.8	3.3	4.5	1	0.1	3.3	10	1.8	0.3	12	ELP-2D
PD03TCBEL2D		K	●	65	8.5	3.3	6.0	1	0.1	3.3	7.7	8.5	0.35	16	
PS05VBEL2D		V	●	22	2.0	5.0	5.5	1	0.1	5.0	11	2	0.3	12	
PS05TBEL2D		S	○	60	4.0	5.0	6.0	-	0.1	5.0	15	4	0.5	20	
PD05TCBEL2D		Z	●	65	8.5	5	11.5	1	0.1	5	7.7	8.5	0.35	16	
PS05TSUL2			S2	○	60	4.0	5.0	6.0	-	0.1	5.0	15	4	0.9	
PS03VBUL2		S	●	18	1.8	3.3	4.5	1	0.1	3.3	10	1.8	0.3	12	
PS03TBUL2		8	○	50	4.0	3.5	4.5	-	0.05	5.0	13	4	0.5	20	
PS05VBUL2		N	●	22	2.0	5.0	5.5	1	0.1	5.0	11	2	0.3	12	
PS05TBUL2		88	○	60	4.0	5.0	5.5	50	0.1	5.0	15	4	0.5	25	
PS05TCBUL2		O	●	120	9.0	5.0	5.5	1	0.1	5.0	15	9	0.9	30	
PS05TVUL9			BY	○	60	4.0	5.0	6.0	1	0.3	5.0	15	4	0.6	20
PS05SVU10		SU	○	80	5.0	5.0	5.5	50	0.3	5.0	16	5	1.0	25	ULP-10
PD03TV3810D9		-	●	14	4	5.0	6.0	1	0.5	3.3	10	5.5	0.7	15	DFN3810-9L
PD05TV5515D14		-	●	55	5.5	3.3	6.0	1	0.5	5.0	3.5	4	0.3 (Typ)	15	DFN5515-14L

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

■ Power TVS

Type No.	Mark	AEC-Q	Max. Ratings		V_{RWM} (V)	V_{BR} (V)			I_R (μ A)		V_C (V)		C_T (pF)	ESD (kV)	PKG
			P_{PK} (W)	I_{PP} (A)		Max.	Min.	@ I_t (mA)	Max.	@ V_R (V)	Max.	@ I_{PP} (A)			
PG24LSSMAF		P24	○	600	18.5	24	26.7	1	0.1	24	32.5	18.5	1000	30	SMAF
PG36JSSMAF		P36	○	600	12.8	36	40	1	0.1	36	47.2	18.5	800	30	
PG24LSSMB		Q24	○	1500	43.5	24	26.7	1	0.1	24	34.5	43.5	2000	30	SMB
PG36LSSMB		Q36	○	1500	25.8	36	40	1	0.1	36	58.1	25.8	2000	30	
PG24MSSMC		R24	○	5000	129	24	26.7	1	0.1	24	38.9	129	5000	30	SMC
PG36MSSMC		R36	○	5000	86.1	36	40.4	1	0.1	36	58.1	86.1	5000	30	

Note) ○ : AEC-Q Qualified

Schottky Barrier Diode

Small Signal Schottky Barrier Diode

Type No.	Mark	AEC-Q	Max. Ratings							V _F (V)		I _R (μ A)		C _T (pF)			PKG
			V _{RRM} (V)	V _R (V)	I _{FM} (mA)	I _O (mA)	I _{FSM} (A)	P _D (mW)	Max.	@I _F (mA)	Max.	@V _R (V)	Max.	@V _R (V)	@f (MHz)		
KDR720EL2A		U	●	30	30	-	200	0.5	-	0.37	10	7	10	-	-	-	ELP-2A
KDR530UL		UL	●	30	30	-	500	0.5	-	0.5	500	0.5	30	30	1	1	ULP-2
KDR720UL		SB	○	30	30	-	100	1	-	0.35	10	10	10	-	-	-	
KDR740UL		SD	○	40	40	-	200	3	-	0.6	200	10	40	-	-	-	
KDR720F		R	○	30	30	-	100	1	-	0.35	10	10	10	-	-	-	TFSC
KDR730F		Q	○	30	30	-	100	0.5	-	0.45	10	0.5	10	-	-	-	
KDR720V		SB	○	30	30	-	100	1	-	0.35	10	10	10	-	-	-	VSC
KDR730V		SA	○	30	30	-	100	0.5	-	0.45	10	0.5	10	-	-	-	
KDR720E		UB	○	30	30	-	200	1	150	0.5	200	30	10	-	-	-	ESC
KDR730E		EB	○	30	30	-	200	1	150	0.6	200	1	10	-	-	-	
KDR377E		UV	○	40	40	150	30	0.2	150	0.55	30	20	40	6 (Typ)	1	1	
KDR760E		DA	○	60	60	-	200	1	150	0.66	200	10	10	-	-	-	
KDR729		UM	○	30	30	300	200	1	200	0.55	200	50	30	50 (Typ)	0	1	USC
KDR412		U3	○	40	20	-	500	3	-	0.5	500	30	10	20 (Typ)	10	1	
KDR377		UV	○	40	40	150	30	0.2	200	0.55	30	20	40	6 (Typ)	1	1	
KDR357		UL	○	45	40	200	100	1	200	0.55	100	5	40	30	0	1	
KDR331V		UW	○	15	10	100	50	1	100	0.5	50	20	10	40	0	1	VSM
KDR731		UX	○	30	30	-	70	2	-	0.55	70	5	15	5 (Typ)	10	1	USM

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

Small Signal Schottky Barrier Diode

TypeNo.	Mark	AEC-Q	Max. Ratings						V _F (V)		I _R (μA)		C _T (pF)			PKG
			V _{RRM} (V)	V _R (V)	I _O (mA)	I _{FSM} (A)	P _D (mW)	Max.	@I _F (mA)	Max.	@V _R (V)	Max.	@V _R (V)	@f (MHz)		
BAT54		L4	○	30	30	200	0.6	200	0.8	100	2	25	10	1	1	SOT-23
KDR411S		U3	○	40	20	500	3	-	0.5	500	30	10	20 (Typ)	10	1	
KDR105S		DL	○	50	50	100	2	-	0.55	100	10	25	7.7 (Typ)	10	1	
BAT54C		L43	○	30	30	200	0.6	200	0.8	100	2	25	10	1	1	
BAT54S		L44	○	30	30	200	0.6	200	0.8	100	2	25	10	1	1	
KDR731S		UX	○	30	30	70	2	-	0.55	70	5	15	5 (Typ)	10	1	
KDR407S		DN	○	40	40	750	5	-	0.5	750	10	40	-	-	-	
KDR720S		MG	○	30	30	200	1	-	0.55	200	50	30	30 (Typ)	0	1	
KDR721S		MK	○	30	30	200	1	-	0.55	200	50	30	13 (Typ)	10	1	

Note) ○ : AEC-Q Qualified

DIODE

Power Schottky Barrier Diode

TypeNo.	Mark	AEC-Q	Max. Ratings			V _{FM} (V)		I _{RRM} (mA)		PKG	
			V _{RRM} (V)	I _O (A)	I _{FSM} (A)	Max.	@I _{FM} (A)	Max.	@V _R (V)		
USFB13		A3	○	30	1	5	0.47	1	0.20	30	USF
USFB13A		BA	○	30	1	22	0.52	1	0.05	30	
USFB13L		BB	●	30	1	22	Typ 0.39	1	1	30	
USFB14		SA	○	40	1	5	0.55	0.7	0.05	40	
USFB16LA		B6	●	60	1	25	0.70	1	0.05	60	
KDR713W		W13	●	30	1	4	0.5	1	0.20	30	SOD-123
KDR714W		W14	●	40	1	4	0.6	1	0.01	40	
SMFB13		B13	○	30	1	22	0.42	1	1	30	SMF
SMFB16		S16	●	60	1	30	0.55	1	0.05	60	
SMFB23H		33H	○	30	2	22	0.49	2	0.05	30	
SMFB14		B14	○	40	1	22	0.50	1	1	40	
SMAFB24		T24	●	40	2	55	0.50	2	0.05	40	SMAF
SMAFB26		T26	●	60	2	50	0.50	2	0.05	60	
SMAFB34		T34	●	40	3	50	0.50	3	0.05	40	
SMAFB36		T36	●	60	3	70	0.50	3	0.05	60	
SMAFB310		T310	●	100	3	70	0.50	3	0.05	100	
SMAFAB54J		54J	●	40	5	150	0.52	5	0.15	40	
SMAB13		B13	○	30	1	40	0.42	1	1	30	SMA
SMAB33		B33	○	30	3	70	0.45	3	2	30	
SMAB14		B14	○	40	1	40	0.50	1	1	40	
SMAB34		B34	○	40	3	70	0.52	3	2	40	
SMAB16		B16	●	60	1	30	0.58	1	1	60	
SMAB36		B36	●	60	3	70	0.60	3	2	60	
SMAB110		B110	●	100	1	30	0.80	1	1	100	
SMAB210		B210	●	100	2	50	0.80	2	1	100	

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

Schottky Barrier Diode

Power Schottky Barrier Diode

TypeNo.	AEC-Q	Max. Ratings			V _{FM} (V)		I _{RRM} (μA)		R _{th(j-c)} (°C/W)	PKG		
		V _{RRM} (V)	I _O (A)	I _{FSM} (A)	Max.	@I _{FM} (A)	Max.	@V _{RRM} (V)	Max.			
MBRD5U100D		●	100	5	90	0.8	5	50	100	5	DPAK(3)	
MBRD5U200D		●	200	5	90	0.95	5	50	200	5		
MBRD30U45CT		○	45	30	100	0.70	15	100	45	6		
MBRD6U60CT		●	60	6	45	0.65	3	50	60	6		
MBRD10U60CT		●	60	10	45	0.75	5	50	60	6		
MBRD10U100CT		●	100	10	45	0.85	5	50	100	6		
MBRD10U200CT		●	200	10	45	0.95	5	50	200	6		
MBRD5U150		●	150	5	125	0.9	5	100	150	5		
MBRD10U150		●	150	10	150	0.9	10	100	150	5		
MBRD20U60CT		●	60	20	150	0.75	10	50	60	6		
MBRD20U100CT		●	100	20	150	0.85	10	50	100	6		
MBRD20U150CT		●	150	20	150	0.9	10	50	150	6		
MBRD20U200CT		●	200	20	150	0.95	10	50	200	6		
MBRF10U45CTA		○	45	10	100	0.7	5	100	45	4.5		TO-220IS(1)
MBRF15U45CTA		○	45	15	150	0.7	7.5	100	45	4		
MBRF20U45CTA		○	45	20	250	0.7	10	100	45	4		
MBRF30U45CTA		○	45	30	350	0.7	15	100	45	3.5		
MBRF10U60CTA		●	60	10	100	0.75	5	50	60	4.5		
MBRF20U60CTA		○	60	20	250	0.75	10	50	60	3.5		
MBRF30U60CTA		○	60	30	350	0.75	15	50	60	3		
MBRF20U80CTA		●	80	20	150	0.8	10	600	80	4		
MBRF10U100CTA		●	100	10	100	0.85	5	50	100	4.5		
MBRF20U100CTA		●	100	20	100	0.85	10	50	100	3.5		
MBRF30U100CTA		○	100	30	350	0.85	15	50	100	3		
MBRF10U150CTA		●	150	10	130	0.9	5	50	150	4.5		
MBRF20U150CTA		○	150	20	180	0.9	10	50	150	3.5		
MBRF10U200CTA		●	200	10	100	0.95	5	50	200	4.5		
MBRF20U200CTA		●	200	20	120	0.95	10	50	200	3.5		
MBRF10U200		●	200	10	100	0.95	10	100	200	4.5	TO-220IS (2pin)	
MBRF20U200		●	200	20	120	0.95	20	100	200	3.5		

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

■ Power Schottky Barrier Diode(Low V_F Type)

TypeNo.	AEC-Q	Max. Ratings			$V_{FM}(V)$		$I_{RRM}(\mu A)$		$R_{th}(j-c)$ ($^{\circ}C/W$)	PKG
		$V_{RRM}(V)$	$I_O(A)$	$I_{FSM}(A)$	Max.	@ $I_{FM}(A)$	Max.	@ $V_{RRM}(V)$	Max.	
TMBRD10100CT	●	100	10	100	0.67	5	100	100	6	DPAK(3)
TMBRD20100CT	●	100	20	150	0.75	10	100	100	6	
TMBRD30100CT	●	100	30	160	0.77	15	100	100	6	
TMBRD30150CTA	●	150	30	150	0.9	15	100	150	6	
TMBRD20100D	●	100	20	150	0.7	20	200	100	6	
TMBRD20150D	●	150	20	150	1	20	100	150	6	
TMBRF10100CT	○	100	10	100	0.67	5	100	100	4.5	TO-220IS(1)
TMBRF20100CT	●	100	20	150	0.7	10	100	100	4	
TMBRF30100CT	●	100	30	180	0.77	15	200	100	4	
TMBRF40100CT	○	100	40	200	0.73	20	200	100	3.5	
TMBRF40120CT	●	120	40	200	0.85	20	100	120	3.5	
TMBRF20150CTA	●	150	20	120	0.9	20	100	150	-	
TMBRF30150CTA	●	150	30	150	0.9	15	100	150	-	
TMBRF40150CT	●	150	40	200	1	20	100	150	3.5	
TMBRF20200CT	●	200	20	150	1.4	10	150	200	4	
TMBRF20200CTA	●	200	20	150	0.95	10	150	200	4	

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

DIODE

Fast Recovery Rectifier

Ultra Fast Recovery Rectifier

TypeNo.	AEC-Q	Max. Ratings			V _{FM} (V)		I _{RM} (μA)		t _{rr} (ns)				PKG	
		V _{RRM} (V)	I _O (A)	I _{FSM} (A)	Max.	@I _{FM} (A)	Max.	@V _{RRM} (V)	Max.	@V _R (V)	@I _F (A)	di/dt (A/us)		
U5A6CD		○	600	5	100	1.7	5	30	600	35	30	1	-50	DPAK(3)
U8A6CD		○	600	8	100	1.8	8	30	600	35	30	1	-50	
U10A6CDC		○	600	10	100	1.7	5	30	600	35	30	1	-50	
U5A6CI		○	600	5	100	1.7	5	30	600	35	30	1	-50	TO- 220IS (2P)
U10A6CI		○	600	10	100	2.0	10	30	600	35	30	1	-50	
U10A7CI		○	700	10	80	2.5	10	1	700	35	30	1	-50	
U20A3CICA		●	300	20	110	1.3	10	35	300	40	30	1	-50	TO-220IS
U10A6CIC		○	600	10	100	1.7	5	30	600	35	30	1	-50	
U20A6CIC		○	600	20	100	2.0	10	30	600	35	30	1	-50	

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

■ SiC Schottky Barrier Diode

Type No.		AEC-Q	Max. Ratings			V _{FM} (V)		I _{RRM} (μA)		R _{th(j-c)} (°C/W)	PKG
			V _{RRM} (V)	I _o (A)	I _{FSM} (A)	Max.	@I _F (A)	Max.	@V _{RRM} (V)	Max.	
SMBRF08A65BIS3		●	650	27	74	1.5	8	20	650	2	TO-220-2L (2PIN)
SMBRF10A12CIS3		●	1200	39	95	1.6	10	20	1200	0.85	
SMBRF10A65BIS3		●	650	33	75	1.5	10	25	650	1.7	
SMBRF12A65BIS3		●	650	44	115	1.5	12	30	650	1.2	
SMBRF15A12CIS3		●	1200	53	120	1.5	15	30	1200	0.71	
SMBRK20A12CIS3		○	1200	64	170	1.6	20	40	1200	0.7	TO-247-2L
SMBRK20A65BIS3		○	650	57	135	1.5	20	50	650	1.1	
SMBRK30A12CIS3		○	1200	77	210	1.65	30	60	1200	0.6	
SMBRK20A65BCS3		●	650	32	68	1.5	10	25	650	2.0	TO-247-3L
SMBRK40A65BCS		○	650	51	135	1.7	20	50	650	1.1	
SMBRK40A65BCS3		○	650	57	135	1.5	20	50	650	1.1	

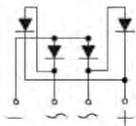
Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

DIODE

Bridge Rectifier

Bridge Rectifiers

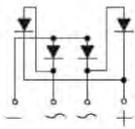
Type No.	AEC-Q	Max. Ratings			V _{FM} (V)		I _{RRM} (μA)		PKG
		VRRM (V)	IO (A)	IFSM (A)	Max.	@IF (A)	Max.	@VRRM (V)	
GBU4005	●	50	4	120	1.05	4	10	50	GBU
GBU401	●	100	4	120	1.05	4	10	100	
GBU402	●	200	4	120	1.05	4	10	200	
GBU404	●	400	4	120	1.05	4	10	400	
GBU406	●	600	4	120	1.05	4	10	600	
GBU408	●	800	4	120	1.05	4	10	800	
GBU410	●	1000	4	120	1.05	4	10	1000	
GBU6005	●	50	6	135	1.05	6	10	50	
GBU601	●	100	6	135	1.05	6	10	100	
GBU602	●	200	6	135	1.05	6	10	200	
GBU604	●	400	6	135	1.05	6	10	400	
GBU606	●	600	6	135	1.05	6	10	600	
GBU608	●	800	6	135	1.05	6	10	800	
GBU610	●	1000	6	135	1.05	6	10	1000	
GBU8005	●	50	8	175	1	8	5	50	
GBU801	●	100	8	175	1	8	5	100	
GBU802	●	200	8	175	1	8	5	200	
GBU804	●	400	8	175	1	8	5	400	
GBU806	●	600	8	175	1	8	5	600	
GBU808	●	800	8	175	1	8	5	800	
GBU810	●	1000	8	175	1	8	5	1000	
GBU10005	●	50	10	150	1.1	10	10	50	
GBU1001	●	100	10	150	1.1	10	10	100	
GBU1002	●	200	10	150	1.1	10	10	200	
GBU1004	●	400	10	150	1.1	10	10	400	
GBU1006	●	600	10	150	1.1	10	10	600	
GBU1008	●	800	10	150	1.1	10	10	800	
GBU1010	●	1000	10	150	1.1	10	10	1000	
GBU15005	●	50	15	200	1.1	15	10	50	
GBU1501	●	100	15	200	1.1	15	10	100	
GBU1502	●	200	15	200	1.1	15	10	200	
GBU1504	●	400	15	200	1.1	15	10	400	
GBU1506	●	600	15	200	1.1	15	10	600	
GBU1508	●	800	15	200	1.1	15	10	800	
GBU1510	●	1000	15	200	1.1	15	10	1000	



Note) ● : Preparing for qualification of AEC-Q

■ Bridge Rectifiers

Type No.	AEC-Q	Max. Ratings			V _{FM} (V)		I _{RRM} (μA)		PKG
		V _{RRM} (V)	I _o (A)	I _{FSM} (A)	Max.	@I _F (A)	Max.	@V _{RRM} (V)	
GBJ6005	●	50	6	150	1.05	6	10	50	GBJ
GBJ601	●	100	6	150	1.05	6	10	100	
GBJ602	●	200	6	150	1.05	6	10	200	
GBJ603	●	300	6	150	1.05	6	10	300	
GBJ604	●	400	6	150	1.05	6	10	400	
GBJ605	●	500	6	150	1.05	6	10	500	
GBJ606	●	600	6	150	1.05	6	10	600	
GBJ8005	●	50	8	170	1.1	8	10	50	
GBJ801	●	100	8	170	1.1	8	10	100	
GBJ802	●	200	8	170	1.1	8	10	200	
GBJ804	●	400	8	170	1.1	8	10	400	
GBJ806	●	600	8	170	1.1	8	10	600	
GBJ808	●	800	8	170	1.1	8	10	800	
GBJ810	●	1000	8	170	1.1	8	10	1000	
GBJ10005	●	50	10	170	1.1	10	10	50	
GBJ1001	●	100	10	170	1.1	10	10	100	
GBJ1002	●	200	10	170	1.1	10	10	200	
GBJ1004	●	400	10	170	1.1	10	10	400	
GBJ1006	●	600	10	170	1.1	10	10	600	
GBJ1008	●	800	10	170	1.1	10	10	800	
GBJ1010	●	1000	10	170	1.1	10	10	1000	
GBJ15005	●	50	15	220	1.1	15	10	50	
GBJ1501	●	100	15	220	1.1	15	10	100	
GBJ1502	●	200	15	220	1.1	15	10	200	
GBJ1504	●	400	15	220	1.1	15	10	400	
GBJ1506	●	600	15	220	1.1	15	10	600	
GBJ1508	●	800	15	220	1.1	15	10	800	
GBJ1510	●	1000	15	220	1.1	15	10	1000	
GBJ25005	●	50	25	400	1.1	25	5	50	
GBJ2501	●	100	25	400	1.1	25	5	100	
GBJ2502	●	200	25	400	1.1	25	5	200	
GBJ2504	●	400	25	400	1.1	25	5	400	
GBJ2506	●	600	25	400	1.1	25	5	600	
GBJ2508	●	800	25	400	1.1	25	5	800	
GBJ2510	●	1000	25	400	1.1	25	5	1000	
GBJ35005	●	50	35	320	1.1	35	10	50	
GBJ3501	●	100	35	320	1.1	35	10	100	
GBJ3502	●	200	35	320	1.1	35	10	200	
GBJ3504	●	400	35	320	1.1	35	10	400	
GBJ3506	●	600	35	320	1.1	35	10	600	
GBJ3508	●	800	35	320	1.1	35	10	800	
GBJ3510	●	1000	35	320	1.1	35	10	1000	



DIODE

Note) ● : Preparing for qualification of AEC-Q

Rectifier

General Purpose Rectifier Diode

Type No.	AEC-Q	Max. Ratings			V _{FM} (V)		I _{RRM} (μ A)		PKG	
		V _{RRM} (V)	I _o (A)	I _{FSM} (A)	Max.	@I _F (A)	Max.	@V _{RRM} (V)		
1N4001G	●	50	1	30	1	1	2.5	50	DO-41	
1N4002G	●	100	1	30	1	1	2.5	100		
1N4003G	●	200	1	30	1	1	2.5	200		
1N4004G	●	400	1	30	1	1	2.5	400		
1N4005G	●	600	1	30	1	1	2.5	600		
1N4006G	●	800	1	30	1	1	2.5	800		
1N4007G	●	1000	1	30	1	1	2.5	1000		
1N5391G	●	50	1.5	50	1.1	1.5	2.5	50		DO-15
1N5392G	●	100	1.5	50	1.1	1.5	2.5	100		
1N5393G	●	200	1.5	50	1.1	1.5	2.5	200		
1N5395G	●	400	1.5	50	1.1	1.5	2.5	400		
1N5397G	●	600	1.5	50	1.1	1.5	2.5	600		
1N5398G	●	800	1.5	50	1.1	1.5	2.5	800		
1N5399G	●	1000	1.5	50	1.1	1.5	2.5	1000		
RL201G	●	50	2	60	1.1	2.5	2	50		
RL202G	●	100	2	60	1.1	2.5	2	100		
RL203G	●	200	2	60	1.1	2.5	2	200		
RL204G	●	400	2	60	1.1	2.5	2	400		
RL205G	●	600	2	60	1.1	2.5	2	600		
RL206G	●	800	2	60	1.1	2.5	2	800		
RL207G	●	1000	2	60	1.1	2.5	2	1000		
RL251G	●	50	2.5	120	1.1	2.5	2.5	50		
RL252G	●	100	2.5	120	1.1	2.5	2.5	100		
RL253G	●	200	2.5	120	1.1	2.5	2.5	200		
RL254G	●	400	2.5	120	1.1	2.5	2.5	400		
RL255G	●	600	2.5	120	1.1	2.5	2.5	600		
RL256G	●	800	2.5	120	1.1	2.5	2.5	800		
RL257G	●	1000	2.5	120	1.1	2.5	2.5	1000		
1N5400G	●	50	3	200	1.1	2.5	3	50	DO-27	
1N5401G	●	100	3	200	1.1	2.5	3	100		
1N5402G	●	200	3	200	1.1	2.5	3	200		
1N5404G	●	400	3	200	1.1	2.5	3	400		
1N5406G	●	600	3	200	1.1	2.5	3	600		
1N5407G	●	800	3	200	1.1	2.5	3	800		
1N5408G	●	1000	3	200	1.1	2.5	3	1000		

Note) ● : Preparing for qualification of AEC-Q

■ General Purpose Rectifier Diode

Type No.	AEC-Q	Max. Ratings			V _{FM} (V)		I _{RRM} (μA)		PKG	
		V _{RRM} (V)	I _O (A)	I _{FSM} (A)	Max.	@I _F (A)	Max.	@V _{RRM} (V)		
GS1A	●	50	1	30	1.10	1	5.0	50	SMA	
GS1B	●	100	1	30	1.10	1	5.0	100		
GS1D	●	200	1	30	1.10	1	5.0	200		
GS1G	●	300	1	30	1.10	1	5.0	300		
GS1J	●	400	1	30	1.10	1	5.0	400		
GS1K	●	500	1	30	1.10	1	5.0	500		
GS1M	●	600	1	30	1.10	1	5.0	600		
GS2AA	●	50	2	50	1.10	2	5.0	50		
GS2BA	●	100	2	50	1.10	2	5.0	100		
GS2DA	●	200	2	50	1.10	2	5.0	200		
GS2GA	●	400	2	50	1.10	2	5.0	400		
GS2JA	●	600	2	50	1.10	2	5.0	600		
GS2KA	●	800	2	50	1.10	2	5.0	800		
GS2MA	●	1000	2	50	1.10	2	5.0	1000		
GS2A	●	50	2	50	1.15	2	5.0	50		SMB
GS2B	●	100	2	50	1.15	2	5.0	100		
GS2D	●	200	2	50	1.15	2	5.0	200		
GS2G	●	400	2	50	1.15	2	5.0	400		
GS2J	●	600	2	50	1.15	2	5.0	600		
GS2K	●	800	2	50	1.15	2	5.0	800		
GS2M	●	1000	2	50	1.15	2	5.0	1000		
GS3AB	●	50	3	100	1.15	3	10.0	50		
GS3BB	●	100	3	100	1.15	3	10.0	100		
GS3DB	●	200	3	100	1.15	3	10.0	200		
GS3GB	●	400	3	100	1.15	3	10.0	400		
GS3JB	●	600	3	100	1.15	3	10.0	600		
GS3KB	●	800	3	100	1.15	3	10.0	800		
GS3MB	●	1000	3	100	1.15	3	10.0	1000		
GS5AB	●	50	5	175	1.1	5	5	50	SMC	
GS5BB	●	100	5	175	1.1	5	5	100		
GS5DB	●	200	5	175	1.1	5	5	200		
GS5GB	●	400	5	175	1.1	5	5	400		
GS5JB	●	600	5	175	1.1	5	5	600		
GS5KB	●	800	5	175	1.1	5	5	800		
GS5MB	●	1000	5	175	1.1	5	5	1000		
GS3A	●	50	3	100	1.15	3	10.0	50		
GS3B	●	100	3	100	1.15	3	10.0	100		
GS3D	●	200	3	100	1.15	3	10.0	200		
GS3G	●	400	3	100	1.15	3	10.0	400		
GS3J	●	600	3	100	1.15	3	10.0	600		
GS3K	●	800	3	100	1.15	3	10.0	800		
GS3M	●	1000	3	100	1.15	3	10.0	1000		
GS5A	●	50	5	120	1.15	5	10.0	50		
GS5B	●	100	5	120	1.15	5	10.0	100		
GS5D	●	200	5	120	1.15	5	10.0	200		
GS5G	●	400	5	120	1.15	5	10.0	400		
GS5J	●	600	5	120	1.15	5	10.0	600		
GS5K	●	800	5	120	1.15	5	10.0	800		
GS5M	●	1000	5	120	1.15	5	10.0	1000		

DIODE

Note) ● : Preparing for qualification of AEC-Q

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
1.5SMC30CA	VISHAY	PG24MSSMC	1SS181	TOSHIBA	KDS181	3KASMC24A	VISHAY	PG24MSSMC
1.5SMC33CA	LITTELFUSE	PG24MSSMC	1SS184	TOSHIBA	KDS184	3KASMC36A	VISHAY	PG36MSSMC
1.5SMC39CA	VISHAY	PG36MSSMC	1SS187	TOSHIBA	KDS187	5KASMC33A	VISHAY	PG36MSSMC
1KSMB30CA	LITTELFUSE	PG24LSSMB	1SS193	TOSHIBA	KDS193	5KASMC36A	VISHAY	PG36MSSMC
1KSMB33CA	LITTELFUSE	PG24LSSMB	1SS226	TOSHIBA	KDS226	6A4	DIODES	6A4G
1KSMB39CA	LITTELFUSE	PG36LSSMB	1SS250	TOSHIBA	KDS135S	AQ1005-01ETG	LITTELFUSE	PG07DBUL2
1N4005	VISHAY	1N4005G	1SS294	TOSHIBA	KDR105S	AQ24C-01FTG	Littelfuse	PG24EBUSC
1N4007	DIODES	1N4007G	1SS300	TOSHIBA	KDS120	AQ24COM-01FTG	LITTELFUSE	PG24DBUSC
1N4007	VISHAY	1N4007G	1SS301	TOSHIBA	KDS121	AQ24COM-02HTG	LITTELFUSE	PG24DAS23
1N4007G	ONSEMI	1N4007G	1SS302	TOSHIBA	KDS122	AQ3045-01ETG	LITTELFUSE	PS05TBUL2
1N4148W	DIODES	KDS4148W	1SS352	TOSHIBA	KDS160	AQ36-01FTG	LITTELFUSE	PG36FSUSC
1N4148W	VISHAY	KDS4148W	1SS355	ROHM	KDS160	AQHV12-01ETG	LITTELFUSE	PG12DBUL2
1N4148WS	DIODES	KDS4148U	1SS355	SEMTECH	KDS160	AZ23B15	VISHAY	PG12GAS23
1N4148WS	SEMTECH	KDS4148U	1SS360	TOSHIBA	KDS120E	B0530W	DIODES	KDR713W
1N4148WS	VISHAY	KDS4148U	1SS361	TOSHIBA	KDS121E	B0530WS	DIODES	KDR412
1N4148WT	DIODES	KDS4148E	1SS361FV	TOSHIBA	KDS121V	B1100Q-13-F	DIODES	SMAB110
1N4148WT	ONSEMI	KDS4148E	1SS362	TOSHIBA	KDS123E	B120	DIODES	SMAB13
1N4148WT	SEMTECH	KDS4148E	1SS362FV	TOSHIBA	KDS123V	B130	DIODES	SMAB13
1N4448HWS	DIODES	KDS4148U	1SS367	TOSHIBA	KDR367	B130LAW	DIODES	SMFB13
1N4448W	DIODES	KDS4148W	1SS380	ROHM	KDS160	B140	DIODES	SMAB14
1N4937	ONSEMI	FR105G	1SS387	TOSHIBA	KDS160E	B140HW	DIODES	KDR714W
1N5408G	DIODES	1N5408G	1SS387CT	TOSHIBA	KDS160UL	B140WSQ	DIODES	KDR412
1N5819HW	DIODES	KDR714W	1SS388	TOSHIBA	KDR730E	B160	DIODES	SMAB16
1PS301	NEXPERIA	KDS121	1SS389	TOSHIBA	KDR367E	B2100A	DIODES	SMAB210
1PS302	NEXPERIA	KDS122	1SS390SMFH	ROHM	KDS114E	B240A	DIODES	SMAB34
1PS765B10	NEXPERIA	KDR729	1SS400	ROHM	KDS160E	B240S1F	DIODES	SMFB14
1PS765B21	NEXPERIA	KDR729	1SS400	SEMTECH	KDS160E	B340A	DIODES	SMAB34
1PS765B40	NEXPERIA	KDR357	1SS400CM	ROHM	KDS160F	B340A	VISHAY	SMAB34
1PS795B10	NEXPERIA	KDR730E	1SS400CSFH	ROHM	KDS160V	B350A	DIODES	SMAB36
1PS795B30	NEXPERIA	KDR730E	1SS400FH	ROHM	KDS160E	BA891	NEXPERIA	KDS114E
1PS795B40	NEXPERIA	KDR377E	1SS400G	ROHM	KDS160V	BAR43A	ONSEMI	KDR720S
1SMA5917BT3G	ONSEMI	SMAZ4.7V	1SS400SM	ROHM	KDS160E	BAR43C	ONSEMI	BAT54C
1SMA5927BT3G	ONSEMI	SMAZ12V	1SS400T1G	ONSEMI	KDS160E	BAS116HYFH	ROHM	KDS4148S
1SMA5929BT3G	ONSEMI	SMAZ15V	1SS403	TOSHIBA	KDS135	BAS140W	INFINEON	KDR357
1SMA5930BT3G	ONSEMI	SMAZ16V	1SS413	TOSHIBA	KDR552F	BAS16	NEXPERIA	KDS4148S
1SMA5934BT3G	ONSEMI	SMAZ24V	1SS416	TOSHIBA	KDR720F	BAS16GWX	NEXPERIA	KDS4148W
1SMB24AT3G	ONSEMI	PG24LSSMB	1SS416CT	TOSHIBA	KDR720UL	BAS16HT1G	ONSEMI	KDS4148U
1SR154-400	ROHM	GS1G	1SS420	TOSHIBA	KDR730E	BAS16HY	ROHM	KDS4148S
1SR154-600	ROHM	GS1J	1SS427	TOSHIBA	KDS160F	BAS16J	NEXPERIA	KDS4148U
1SS181	SEMTECH	KDS181	3.0SMCJ20A	LITTELFUSE	PG24MSSMC	BAS16LT1G	ONSEMI	KDS4148S

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
BAS20HT1G	ONSEMI	KDS135	BAT54CLT1G	ONSEMI	BAT54C	BAV70LT1G	ONSEMI	BAV70
BAS20	DIODES	KDS135S	BAT54CW	DIODES	KDR731	BAV70LT3G	ONSEMI	BAV70
BAS21	DIODES	KDS135S	BAT54CW	NEXPERIA	KDR731	BAV70W	NEXPERIA	KDS121
BAS21	INFINEON	KDS135S	BAT54FILMY	STMICRO	BAT54	BAV74	NEXPERIA	BAV70
BAS21	NEXPERIA	KDS135S	BAT54HT1G	ONSEMI	KDR729	BAV74LT1G	ONSEMI	BAV70
BAS21	VISHAY	KDS135S	BAT54J	NEXPERIA	KDR729	BAV99	DIODES	BAV99
BAS21AHT1G	ONSEMI	KDS135	BAT54L	NEXPERIA	KDR740UL	BAV99	NEXPERIA	BAV99
BAS21J	NEXPERIA	KDS135	BAT54LP	DIODES	KDR740UL	BAV99	VISHAY	BAV99
BAS21LT1G	ONSEMI	KDS135S	BAT54LT1G	ONSEMI	BAT54	BAV99HM	ROHM	BAV99
BAS21Q	DIODES	KDS135S	BAT54S	DIODES	BAT54S	BAV99LT1G	ONSEMI	BAV99
BAS21-Q	NEXPERIA	KDS135S	BAT54S	STMICRO	BAT54S	BAV99T	DIODES	KDS123E
BAS21VM	ROHM	KDS135	BAT54SHM	ROHM	BAT54S	BAV99W	INFINEON	KDS122
BAS31	NEXPERIA	BAV99	BAT54SLT1G	ONSEMI	BAT54S	BAV99W	NEXPERIA	KDS122
BAS316	NEXPERIA	KDS4148U	BAT54S	NEXPERIA	BAT54S	BAV99WT1G	ONSEMI	KDS122
BAS321	NEXPERIA	KDS135	BAT54SW	DIODES	KDR731	BAW56	DIODES	BAW56
BAS35	NEXPERIA	BAV23A	BAT54SW	NEXPERIA	KDR731	BAW56	NEXPERIA	BAW56
BAS40	DIODES	BAT54	BAT54SWT1G	ONSEMI	KDR731	BAW56	SEMTECH	BAW56
BAS40-04	DIODES	BAT54S	BAT54WFILMY	STMICRO	KDR411	BAW56HM	ROHM	BAW56
BAS40-04	INFINEON	BAT54S	BAT54WS	DIODES	KDR729	BAW56W	NEXPERIA	KDS120
BAS40-04	NEXPERIA	BAT54S	BAT54WS	VISHAY	KDR729	BYG20J	VISHAY	HS1J
BAS40-04	VISHAY	BAT54S	BAT54XV2T1G	ONSEMI	KDR730E	BYG21M	VISHAY	GR1M
BAS40-04HY	ROHM	BAT54S	BAT62-02V	INFINEON	KDR377E	BYG23T-M3	VISHAY	H1HV13
BAS40-04LT1G	ONSEMI	BAT54S	BAT64	INFINEON	KDR407S	BYT03-400	STMICRO	HER305G
BAS40-05	INFINEON	BAT54C	BAT64-06	INFINEON	KDR720S	BYT79X-600	NEXPERIA	U10A6CI
BAS40-05	NEXPERIA	BAT54C	BAT750	SEMTECH	KDR407S	BYV10X-600P	NEXPERIA	U10A6CI
BAS40-06W	NEXPERIA	KDS120	BAV170	NEXPERIA	BAV70	BYV29FX-600	NEXPERIA	U10A6CI
BAS416-Q	NEXPERIA	KDS160	BAV199	DIODES	BAV99	BZB84B16	NEXPERIA	Z02W16V-Y
BAS516	NEXPERIA	KDS160E	BAV199	NEXPERIA	BAV99	BZD27C4V7P	VISHAY	SMFZ4.7V
BAS516-Q	NEXPERIA	KDS160E	BAV199WQ	DIODES	KDS122	BZG03C16-M	VISHAY	SMAZ16V
BAT1000	DIODES	KDR407S	BAV21WS	DIODES	KDS135	BZG03C24	VISHAY	SMAZ24V
BAT42WS	DIODES	KDR729	BAV21WS	VISHAY	KDS135	BZG05C4V7	VISHAY	SMAZ4.7V
BAT43WS	DIODES	KDR729	BAV21WSF	DIODES	KDS135	BZT52BXX	VISHAY	KDZXXWV-Y
BAT54	DIODES	BAT54	BAV21WS-V	VISHAY	KDS135	BZT52Cxx	DIODES	SMFZxxV
BAT54	NEXPERIA	BAT54	BAV23A	NEXPERIA	BAV23A	BZT52Cxx	DIODES	KDZxxWV-Y
BAT54-02V	VISHAY	KDR730E	BAV70	DIODES	BAV70	BZT52CxxS	DIODES	KDZxxV-Y
BAT54A	DIODES	KDR720S	BAV70	NEXPERIA	BAV70	BZT52Cxxx	DIODES	SMFZxxV
BAT54A	NEXPERIA	KDR720S	BAV70	ONSEMI	BAV70	BZT52Cxxx	DIODES	KDZxxWV-Y
BAT54AHMFH	ROHM	KDR720S	BAV70	TOSHIBA	BAV70	BZT52HC5V6WF	DIODES	SMFZ5.6V
BAT54C	DIODES	BAT54C	BAV70	VISHAY	BAV70	BZT52H-xxx	NEXPERIA	SMFZxxV
BAT54C	NEXPERIA	BAT54C	BAV70HM	ROHM	BAV70	BZT52-xxx	NEXPERIA	KDZxxWV-Y

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
BZT585B12TQ	DIODES	KDZ12EV	BZX84B5V1	VISHAY	Z02W5.1V-Y	BZX84C3V3LFH	ROHM	BZX84C3V3
BZT585B15T	DIODES	KDZ15EV-Y	BZX84-B5V1	NEXPERIA	BZX84C5V1	BZX84C3V3LT1G	ONSEMI	BZX84C3V3
BZT585B8V2T	DIODES	KDZ8.2EV-Y	BZX84B5V6	VISHAY	Z02W5.6V-Y	BZX84C3V6	VISHAY	Z02W3.6V-X
BZT585BxxT	DIODES	KDZxxEV-Y	BZX84-B5V6	NEXPERIA	BZX84C5V6	BZX84-C3V6	NEXPERIA	Z02W3.6V-X
BZT585BxxxT	DIODES	KDZxxEV	BZX84-B6V2	NEXPERIA	BZX84C6V2	BZX84-C3V6	VISHAY	Z02W3.6V-X
BZX384BXX	VISHAY	KDZXXV-Y	BZX84B6V2LY	ROHM	Z02W6.2V	BZX84-C3V9	NEXPERIA	Z02W3.9V
BZX384-xxx	NEXPERIA	KDZxxV-Y	BZX84-B6V8	NEXPERIA	BZX84C6V8	BZX84C4V3	VISHAY	Z02W4.3V-Y
BZX585-xxx	NEXPERIA	KDZxxEV-Y	BZX84B7V5	VISHAY	Z02W7.5V-Y	BZX84-C4V3	NEXPERIA	Z02W4.3V-Y
BZX84-A15	NEXPERIA	Z02W15V-Y	BZX84-B7V5	NEXPERIA	Z02W7.5V-Y	BZX84-C4V7	NEXPERIA	BZX84C4V7
BZX84-A18	NEXPERIA	Z02W18V-Y	BZX84Bxx	DIODES	BZX84Cxx	BZX84C5V1	VISHAY	Z02W5.1V-Y
BZX84-A5V1	NEXPERIA	Z02W5.1V-Y	BZX84C10	VISHAY	BZX84C10	BZX84-C5V1	NEXPERIA	Z02W5.1V-Y
BZX84-A5V6	NEXPERIA	BZX84C5V6	BZX84-C10	NEXPERIA	BZX84C10	BZX84C5V6	DIODES	BZX84C5V6
BZX84-A9V1	NEXPERIA	BZX84C9V1	BZX84C10LT1G	ONSEMI	BZX84C10	BZX84-C5V6	NEXPERIA	BZX84C5V6
BZX84B10	DIODES	BZX84C10	BZX84-C10-Q	NEXPERIA	BZX84C10	BZX84C5V6-G	VISHAY	BZX84C5V6
BZX84B10	VISHAY	BZX84C10	BZX84C10V-V	VISHAY	BZX84C10	BZX84C5V6LT1G	ONSEMI	BZX84C5V6
BZX84-B10	NEXPERIA	BZX84C10	BZX84-C11	NEXPERIA	Z02W11V-Y	BZX84-C6V2	NEXPERIA	BZX84C6V2
BZX84B10LT1G	ONSEMI	BZX84C10	BZX84C12	VISHAY	BZX84C12	BZX84C6V2LT1G	ONSEMI	BZX84C6V2
BZX84B12	DIODES	BZX84C12	BZX84-C12	NEXPERIA	BZX84C12	BZX84-C6V8	NEXPERIA	Z02W6.8V-Y
BZX84B12	VISHAY	BZX84C12	BZX84-C13	NEXPERIA	BZX84C13	BZX84C7V5	DIODES	Z02W7.5V-Y
BZX84-B12	NEXPERIA	BZX84C12	BZX84C15	DIODES	Z02W15V-Y	BZX84-C7V5	DIODES	Z02W7.5V-Y
BZX84B12LT1G	ONSEMI	BZX84C12	BZX84C15	VISHAY	Z02W15V-Y	BZX84-C8V2	NEXPERIA	Z02W8.2V-Y
BZX84B12VLFH	ROHM	BZX84C12	BZX84-C15	NEXPERIA	Z02W15V-Y	BZX84C8V2-G	VISHAY	Z02W8.2V-Y
BZX84-B13-Q	NEXPERIA	Z02W13V-Y	BZX84C16	DIODES	Z02W16V-Y	BZX84C9V1	DIODES	BZX84C9V1
BZX84B15	VISHAY	Z02W15V-Y	BZX84-C16	NEXPERIA	Z02W16V-Y	BZX84C9V1	ONSEMI	BZX84C9V1
BZX84-B15	NEXPERIA	Z02W15V-Y	BZX84C18	DIODES	Z02W18V-Y	BZX84-C9V1	NEXPERIA	BZX84C9V1
BZX84B15LT1G	ONSEMI	Z02W15V-Y	BZX84-C18	NEXPERIA	Z02W18V-Y	BZX84C9V1-G	VISHAY	BZX84C9V1
BZX84B15Q	DIODES	Z02W15V-Y	BZX84-C20	NEXPERIA	BZX84C20	BZX84C9V1LT1G	ONSEMI	BZX84C9V1
BZX84B18	DIODES	Z02W18V-Y	BZX84C20LT1G	ONSEMI	BZX84C20	BZX84J-xxx	NEXPERIA	KDZxxV-Y
BZX84-B18	NEXPERIA	Z02W18V-Y	BZX84-C20	NEXPERIA	BZX84C20	BZX84-xxx	NEXPERIA	BZX84Cxxx
BZX84B18VLY	ROHM	Z02W18V-Y	BZX84C20VLFH	ROHM	BZX84C20	CDZCV6.8B	ROHM	PG05FSTFC
BZX84B20	VISHAY	Z02W20V-Y	BZX84-C22	NEXPERIA	Z02W22V-Y	CE5388	TOSHIBA	KDS160E
BZX84-B20	NEXPERIA	BZX84C20	BZX84-C24	NEXPERIA	Z02W24V-Y	CE5520	TOSHIBA	KDR730E
BZX84-B22	NEXPERIA	Z02W22V-Y	BZX84-C27	NEXPERIA	Z02W27V-Y	CMH04	TOSHIBA	GS1D
BZX84B2V4	VISHAY	Z02W2.4V-X	BZX84C27LT1G	ONSEMI	BZX84C27	CRS01	TOSHIBA	SMFB13
BZX84B2V7	VISHAY	Z02W2.7V	BZX84C2V4LT1G	ONSEMI	Z02W2.4V-X	CRS03	TOSHIBA	SMFB13
BZX84-B2V7	NEXPERIA	Z02W2.7V	BZX84-C2V7	NEXPERIA	Z02W2.7V	CRS04	TOSHIBA	SMFB14
BZX84-B33	NEXPERIA	Z02W33V	BZX84-C30	NEXPERIA	Z02W30V	CRS06	TOSHIBA	SMFB13
BZX84-B36	NEXPERIA	BZX84C36	BZX84-C36	NEXPERIA	BZX84C36	CRS10I30A	TOSHIBA	SMFB13
BZX84B3V9	VISHAY	Z02W3.9V	BZX84-C3V3	NEXPERIA	BZX84C3V3	CRS10I30C	TOSHIBA	SMFB13
BZX84-B4V7	NEXPERIA	Z02W4.7V-Y	BZX84C3V3-G	VISHAY	BZX84C3V3	CRS10I40A	TOSHIBA	SMFB14

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
CRS12	TOSHIBA	SMFB16	DA204K	ROHM	BAV99	DF2B5M4CT	TOSHIBA	PS03VBUL2
CRS15	TOSHIBA	SMFB23H	DA204U	ROHM	KDS123U	DF2B5M4SL	TOSHIBA	PS05TBEL2D
CRS15I30A	TOSHIBA	SMFB23H	DA221	ROHM	KDS221E	DF2B6.8M1ACT	TOSHIBA	PS05CBUL2
CRS20I30B	TOSHIBA	SMFB23H	DA228K	ROHM	KDS226	DF2B6M4CT	TOSHIBA	PS05VBUL2
CRS30I30A	TOSHIBA	SMFB23H	DA2J10100L	PANASONIC	KDS160	DF2B7ACT	TOSHIBA	PS05CBUL2
CRY68	TOSHIBA	SMFZ6.8V	DA2J10400L	PANASONIC	KDS160	DF2S5.6FS	TOSHIBA	PG05FSTFC
CTS05S30	TOSHIBA	KDR530UL	DA2J10700L	PANASONIC	KDS135	DF3A5.6F	TOSHIBA	PG05HAS23
CUHS15S40	TOSHIBA	USFB14	DA2J10800L	PANASONIC	KDS135	DFLS160	DIODES	SMFB16
CUS01	TOSHIBA	USFB13	DA3J101F0L	PANASONIC	KDS122	DFLS240Q	DIODES	SMFB14
CUS03	TOSHIBA	USFB14	DA3J102D0L	PANASONIC	KDS120	DFLS260-7	DIODES	SMFB16
CUS10S30	TOSHIBA	KDR412	DA3X101F0L	PANASONIC	KDS226	DG1M3	SHINDENGEN	SMFB13
CUS10S40	TOSHIBA	KDR412	DAM1MB27	HITACHI	PG24LSSMAF	DUP2105SOQ-7	DIODES	PG24EAS23
CUS357	TOSHIBA	KDR357	DAN202FMFH	ROHM	KDS121	DZ2JxxxM0L	PANASONIC	KDZxxV
CUS521	TOSHIBA	KDR729	DAN202K	ROHM	KDS184	DZ2W056	PANASONIC	SMFZ5.6V
D15XB60	SHINDENGEN	GBJ1506	DAN202U	ROHM	KDS121	DZ2W15000L	PANASONIC	SMFZ15V
D15XB60H	SHINDENGEN	GBJ1506	DAN202UM	ROHM	KDS121	E24SBPC1A	SEMTECH	PG24DBUL2
D1F60	SHINDENGEN	GS1J	DAN217	ROHM	KDS226	E8V0HUPM1C	SEMTECH	PG09HS1610D2
D1FH3	SHINDENGEN	SMAB33	DAN217U	ROHM	KDS122	EC10QS06	NIEC	SMAB16
D1FJ10	SHINDENGEN	SMAB110	DAN217WM	ROHM	KDS123E	EC20QSA065	NIEC	SMAB36
D1FK100	SHINDENGEN	HS1M	DAN222	ROHM	KDS121E	EC21QS10	NIEC	SMAB210
D1FK60	SHINDENGEN	HS1J	DAN222WM	ROHM	KDS121E	EDZC6.8B	ROHM	PG05BSESC
D1FL20U	SHINDENGEN	ES1D	DAN235FMFH	ROHM	KDS112	EDZVFHxxB	ROHM	KDZxxEV-Y
D1FM3	SHINDENGEN	SMAB33	DAP202K	ROHM	KDS181	EDZxxB	ROHM	KDZxxEV
D1FS4	SHINDENGEN	SMAB14	DAP202U	ROHM	KDS120	EG01A	SANKEN	FR105G
D1FS6	SHINDENGEN	SMAB16	DAP222	ROHM	KDS120E	EG01C	SANKEN	FR107G
D1FT10A	SHINDENGEN	SMAB210	DAP222WM	ROHM	KDS120E	EM01A	SANKEN	1N4005G
D20XB60	SHINDENGEN	GBJ2506	DB2J316	PANASONIC	KDR729	EM1C	SANKEN	UF4007G
D24V0LA1B2LPQ	DIODES	PG24DBUL2	DB2J40600L	PANASONIC	KDR357	ER502	NIEC	SF44G
D25SB60	SHINDENGEN	GBJ2506	DB3X313F0L	PANASONIC	BAT54S	ES1B	VISHAY	ES1B
D25XB60	SHINDENGEN	GBJ2506	DB3X317K0L	PANASONIC	KDR701S	ES1D	DIODES	ES1D
D3Z22BF	DIODES	KDZ22V-Y	DDZX5V1BQ	DIODES	BZX84C5V1	ES1D	ONSEMI	ES1D
D3Z27BF	DIODES	KDZ27V	DDZxxxB	DIODES	KDZxxWV-Y	ES1D	SEMTECH	ES1D
D4V5H1U2LP1610	DIODES	PG05KS1610D2	DESD1CAN2SOQ-7	DIODES	PG24FAS23	ES1D	VISHAY	ES1D
D5SB60	SHINDENGEN	GBJ606	DESD1CANFD24VSOQ	DIODES	PG24DAS23	ES1J	DIODES	ES1J
D5SBA60	SHINDENGEN	GBJ606	DESD1LIN2WSQ	DIODES	PG1524DBUSC	ES2B	DIODES	ES2B
D5V0L1B2LPSQ-7B	DIODES	PS05CBUL2	DESD2CAN2SOQ	DIODES	PG24DAS23	ES2D	DIODES	ES2D
D5V0M1U2S9	DIODES	PG05FSTFC	DESD5V0S1BAQ-7	DIODES	PG05GBUSC	ES2D	ONSEMI	ES2D
D5V0X1B2LP	DIODES	PG05TBUL2	DESD5V0S1BLP3	DIODES	PG05DBEL2A	ES2D	VISHAY	ES2D
D5V0X1BA2LPQ	DIODES	PG05TBUL2A	DF2B18FU	TOSHIBA	PG15FBUSC	ES2J	DIODES	ES2J
D6FEC4ST	SHINDENGEN	MBRD6U60CT	DF2B29FU	TOSHIBA	PG24DBUSC	ES3CB	DIODES	ES2C

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
ES3D	VISHAY	ES3D	GBU606	DIODES	GBU606	MBRD10150CT	DIODES	MBRD10U200CT
ES3J	ONSEMI	ES3J	GBU608	DIODES	GBU608	MBRD20100CT	DIODES	MBRD20U100CT
ESD24VS2U	INFINEON	PG24FAS23	GBU610	DIODES	GBU610	MBRF10100CT	DIODES	MBRF10U100CTA
ESD2CAN24DBZR	TI	PG24DAS23	GBU6D	ONSEMI	GBU602	MBRF10200W	DIODES	MBRF10U200
ESD2CAN24	TI	PG24DAS23	GBU806	DIODES	GBU806	MBRF1060CT	DIODES	MBRF10U60CTA
ESD3Z5V0	SEMTECH	PG05HSUSC	GBU808	DIODES	GBU808	MBRF20150CT	DIODES	MBRF20U150CTA
ESD5B5.0ST1G	ONSEMI	PS05CBESC	GF1G	VISHAY	GS1G	MBRF30H45CT	STMICRO	MBRF30U45CTA
ESD5Z3.3T1G	ONSEMI	PG03FSESC	GP30M	VISHAY	1N5408G	MC2836	ISAHAYA	KDS181
ESD5Z5.0T1G	ONSEMI	PG05FSESC	GPP10M	VISHAY	1N4007G	MC2837	ISAHAYA	KDS226
ESD7004MUTAG	ONSEMI	PS05SVU10	GPP20J	VISHAY	RL205G	MC2838	ISAHAYA	KDS184
ESD7331MUT5G	ONSEMI	PS03VBEL2D	GSD2004WS	VISHAY	KDS135	MC2838	ISAHAYA	KDS184
ESD761DPYRQ1	TI	PG24DBUL2	GSOT05C	VISHAY	PG05HAS23	MC2840	ISAHAYA	KDS226
ESDA041-1JY	STMICRO	PG05HSUSC	GSOT12C	VISHAY	PG12GAS23	MC2846	ISAHAYA	KDS120
ESDA051-1JY	STMICRO	PG05HSUSC	HSB123	RENESAS	KDS123U	MC2848	ISAHAYA	KDS121
ESDA25P35-1U1M	STMICRO	PG22GS1610D2	HSP051-2W3Y	STMICRO	PG05BAUSM	MC2850	ISAHAYA	KDS122
ESDCAN01-2BLY	STMICRO	PG24EAS23	HZM3.9N-B2	RENESAS	Z02W3.9V	MM1SZxx	SEMTECH	SMFZxxV
ESDCAN04-2BLY	STMICRO	PG24EAS23	IDH06G65C6XKSA1	INFINEON	SMBRG06A65BIS4	MM1W16B	SEMTECH	SMFZ16V
ESDCAN24-2BLY	STMICRO	PG24DAS23	KDZxxB	ROHM	SMFZxxV	MM1Z18	SEMTECH	SMFZ18V
ESDLIN1524BJ	STMICRO	PG1524DBUSC	LL25XB60	SHINDENGEN	GBJ2506	MM1Z22	SEMTECH	SMFZ22V
FCG10AU20	NIEC	MBRF10U200CTA	LN25XB60	SHINDENGEN	GBJ2506	MM1Z27	SEMTECH	SMFZ27V
FCH30A10	NIEC	MBRF30U100CTA	LT2A07G	DIODES	RL207G	MM1Z36B	SEMTECH	SMFZ36V
FCH30E10	NIEC	MBRF30U100CTA	M1FH3	SHINDENGEN	SMFB23H	MM1Z5250B	SEMTECH	SMFZ20V
FCQS20A065	NIEC	MBRF20U60CTA	M1FS4	SHINDENGEN	SMFB14	MM3Zxx	SEMTECH	KDZxxV
FCQS20B065	NIEC	MBRF20U60CTA	M1FS6	SHINDENGEN	SMFB16	MM3ZxxVST1G	ONSEMI	KDZxxV-Y
FCQS30A065	NIEC	MBRF30U60CTA	MA2J111	PANASONIC	KDS160	MM5Z15	SEMTECH	KDZ15EV-Y
FCQS30AU065	NIEC	MBRF30U60CTA	MA2J1110G	PANASONIC	KDS160	MM5Z22	SEMTECH	KDZ22EV-Y
FFPF08S60STU	ONSEMI	U8A6CI	MA3J147	PANASONIC	KDS122	MM5Z5V1B	SEMTECH	KDZ5.1EV-Y
FMEN-2208	SANKEN	MBRF20U100CTA	MA3X152E	PANASONIC	KDS184	MMBD1205	ONSEMI	BAV23A
FMX-1106S	SANKEN	U10A6CI	MAZ8xxxG	PANASONIC	KDZxxV	MMBD1404A	ONSEMI	KDS135S
FMXA-1106S	SANKEN	U10A6CI	MBR0520LT1G	ONSEMI	KDR713W	MMBD202CC	SEMTECH	KDS184
FMX-G12S	SANKEN	MBRF10U200	MBR0540T1G	ONSEMI	KDR714W	MMBD4148	ONSEMI	KDS4148S
FSV240AF	ONSEMI	SMAFB34	MBR1020VL	ONSEMI	SMFB13	MMBD4148CC	ONSEMI	BAV70
G20E100CTFW	DIODES	MBRF20U100CTA	MBR140SFT1G	ONSEMI	SMFB14	MMBD4148SE	ONSEMI	BAV99
G20E100DW	DIODES	MBRD20U100CT	MBR230LSFT1G	ONSEMI	SMFB23H	MMBD7000HC	DIODES	BAV70
GBJ1506	DIODES	GBJ1506	MBR230S1F	DIODES	SMFB23H	MMBD7000HS	DIODES	BAV70
GBJ15V10	DIODES	GBJ1510	MBR30100CTF	DIODES	MBRF30U100CTA	MMBD7000LT1G	ONSEMI	BAV99
GBJ2506	DIODES	GBJ2506	MBRA140T3G	ONSEMI	SMAB14	MMBZ27VAL	NEXPERIA	PG24FAS23
GBU408	DIODES	GBU408	MBRA1H100T3G	ONSEMI	SMAB110	MMBZ27VALQ	DIODES	PG24FAS23
GBU410	DIODES	GBU410	MBRA2H100T3G	ONSEMI	SMAB110	MMBZ27VALT1G	ONSEMI	PG24FAS23
GBU4M	VISHAY	GBU410	MBRA340T3G	ONSEMI	SMAB34	MMBZ27VAT-Q	NEXPERIA	PG24FAS23

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
MMBZ27VCL	NEXPERIA	PG24FAS23	NRVBA160T3G	ONSEMI	SMAB16	PESD1IVN27-A	NEXPERIA	PG24EBUSC
MMBZ27VCLQ-7	DIODES	PG24FAS23	NRVBA2H100NT3G	ONSEMI	SMAB210	PESD1IVN27A-Q	NEXPERIA	PG24DBUSC
MMBZ27VCLYFH	ROHM	PG24FAS23	NRVBA340NT3G	ONSEMI	SMAB34	PESD1LIN	NEXPERIA	PG1524DBUSC
MMBZ27VCT-Q	NEXPERIA	PG24FAS23	NRVBA340T3G	ONSEMI	SMAB34	PESD24VL1BA	NEXPERIA	PG24DBUSC
MMBZ33VAL	NEXPERIA	PG24FAS23	NRVBAF360T3G	ONSEMI	SMAFB36	PESD24VS1UA	NEXPERIA	PG24GSUSC
MMBZ5231B	DIODES	BZX84C5V1	NRVBSS13HE	ONSEMI	USFB13	PESD24VS2UAT	NEXPERIA	PG24FAS23
MMBZ5240BLT1G	ONSEMI	BZX84C10	NRVBSS14HE	ONSEMI	USFB14	PESD24VS2UT-Q	NEXPERIA	PG24FAS23
MMBZ5245BLT1G	ONSEMI	Z02W15V-Y	NRVTS260ESFT1G	ONSEMI	SMFB16	PESD24VS4UD	NEXPERIA	PG24FBTS6
MMBZ5256BLT1G	ONSEMI	Z02W30V	NRVTS2H60ESFT1G	ONSEMI	SMFB16	PESD2CAN	NEXPERIA	PG24EAS23
MMBZ9V1AL	NEXPERIA	PG05HAS23	NRVTS2H60ESFT3G	ONSEMI	SMFB16	PESD2CANFD24L-T	NEXPERIA	PG24DAS23
MMDL6050T1G	ONSEMI	KDS4148U	NSR0130P2T5G	ONSEMI	KDR720F	PESD2CANFD24V-T	NEXPERIA	PG24DAS23
MMDL914T1G	ONSEMI	KDS4148U	NSR05F40NXT5G	ONSEMI	KDR530UL	PESD2CANFD24VT-Q	NEXPERIA	PG24DAS23
MMSD4148T1G	ONSEMI	KDS4148W	NSVBAS21HT1G	ONSEMI	KDS135	PESD2CANFD27V-T	NEXPERIA	PG24DAS23
MMSZ15T1G	ONSEMI	SMFZ15V	NSVBAT54SWT1G	ONSEMI	KDR731	PESD2CANFD27VT-Q	NEXPERIA	PG24DAS23
MMSZ5226BS	DIODES	KDZ3.3V	NSVR02100HT1G	ONSEMI	KDS4148U	PESD2IVN24-T	NEXPERIA	PG24DAS23
MMSZ5230BT1G	ONSEMI	SMFZ4.7V	NSVR0240HT1G	ONSEMI	KDR357	PESD2IVN24T-Q	NEXPERIA	PG24DAS23
MMSZ5232BT1G	ONSEMI	SMFZ5.6V	NSVR0240V2T1G	ONSEMI	KDR760E	PESD2IVN27-T	NEXPERIA	PG24DAS23
MMSZ5254BS	DIODES	KDZ27V	NSVR0340HT1G	ONSEMI	KDR729	PESD2IVN27T-Q	NEXPERIA	PG24DAS23
MMSZ52XX	VISHAY	KDZXXWV-Y	NSVRB751V40T1G	ONSEMI	KDR377	PESD36V51ULS	NEXPERIA	PG36DSUL2
MMSZ52xxB	DIODES	KDZxxWV-Y	NUP1105LT1G	ONSEMI	PG24FAS23	PESD36V52UT	NEXPERIA	PG36FSS23
MMSZ5V6CF	ONSEMI	SMFZ5.6V	NUP2105LT1G	ONSEMI	PG24EAS23	PESD3V3L1UL	NEXPERIA	PS03CBUL2
MMSZ7V5CWF	DIODES	SMFZ7.5V	NUP2202W1T2G	ONSEMI	PS05RVUS6	PESD3V3S2UT	NEXPERIA	PG05HAS23
MMSZxxxT1G	ONSEMI	KDZxxWV-Y	NZH9V1B	NEXPERIA	SMFZ9.1V	PESD3V3X1BL	NEXPERIA	PS03VBUL2
MRA4007T3G	ONSEMI	GS1M	P6SMB30A	VISHAY	PG24LSSMB	PESD4USB5BTT5-Q	NEXPERIA	PS05SVU10
MSQA6V1W5T2G	ONSEMI	PG05GBUSV	P6SMB33A	VISHAY	PG24LSSMB	PESD5V0C1BLS-Q	NEXPERIA	PS05TBUL2
MURA110T3G	ONSEMI	SMAB110	P6SMB43CA	LITTELFUSE	PG36LSSMB	PESD5V0C1BSF	NEXPERIA	PS05TBEL2D
MURF1560G	ONSEMI	U10A6CI	P6SMBJ27A	LITTELFUSE	PG24LSSMB	PESD5V0F1BL	NEXPERIA	PS05TBUL2
MURS140	DIODES	ES2G	P6SMBJ30A	LITTELFUSE	PG24LSSMB	PESD5V0F1BLD	NEXPERIA	PG05TBUL2
MURS220T3G	ONSEMI	ES2D	P6SMBJ33CA	LITTELFUSE	PG24LSSMB	PESD5V0F1BRDL-Q	NEXPERIA	PS05TBUL2
MURS360T3G	ONSEMI	ES3J	PD3S130H	DIODES	USFB13A	PESD5V0H1BSF	NEXPERIA	PS05TBEL2D
NBRD5H100	ONSEMI	MBRD5U150	PDZxxB	NEXPERIA	KDZxxV	PESD5V0L1BA	NEXPERIA	PG05GBUSC
NRVA4004T3G	ONSEMI	GS1G	PESD12VL1BA	NEXPERIA	PG15EBUSC	PESD5V0L1UB	NEXPERIA	PG05BSESC
NRVA4007T3G	ONSEMI	GS1M	PESD12VS1ULD	NEXPERIA	PG12DBUL2	PESD5V0L1UL	NEXPERIA	PG05FSUL2
NRVB0530T1G	ONSEMI	KDR713W	PESD12VV1BL	NEXPERIA	PG12DBUL2	PESD5V0R1BSF	NEXPERIA	PS05TBEL2D
NRVB0540T1G	ONSEMI	SMFB14	PESD15VL1BA	NEXPERIA	PG15EBUSC	PESD5V0S1BA	NEXPERIA	PG05GBUSC
NRVB120VLSFT1G	ONSEMI	SMFB13	PESD15VL2BT	NEXPERIA	PG15ECS23	PESD5V0S1BB	NEXPERIA	PS05DBESC
NRVB130LSFT1G	ONSEMI	SMFB13	PESD1CAN	NEXPERIA	PG24DAS23	PESD5V0S1BL	NEXPERIA	PS05DBUL2
NRVB130T1G	ONSEMI	SMFB13	PESD1FLEX	NEXPERIA	PG24DAS23	PESD5V0S1UB	NEXPERIA	PG05FSESC
NRVB140ESFT1G	ONSEMI	SMFB14	PESD1IVN24A-Q	NEXPERIA	PG24EBUSC	PESD5V0S1UL	NEXPERIA	PG05GSUL2
NRVB140SFT3G	ONSEMI	SMFB14	PESD1IVN24-AX	NEXPERIA	PG24EBUSC	PESD5V0S1ULS	NEXPERIA	PG05GSUL2

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
PESD5V0U1BB	NEXPERIA	PG05FBESC	PMEG6010CEH	NEXPERIA	SMFB16	RB050L-60DD	ROHM	SMAB36
PESD5V0V1BB	NEXPERIA	PS05CBESC	PMEG6010ELR	NEXPERIA	SMFB16	RB050LA-30	ROHM	SMAB33
PESD5V0V1BB-Q	NEXPERIA	PS05CBESC	PMEG6010ELRX	NEXPERIA	SMFB16	RB050LA-40	ROHM	SMAB34
PESD5V0V1BL	NEXPERIA	PS05CBUL2	PMEG6010EP	NEXPERIA	SMAFB26	RB050LAM-40	ROHM	SMAFB34
PESD5V0V1BLD	NEXPERIA	PS05CBUL2	PMEG6020AELR	NEXPERIA	SMFB16	RB050LAM-60	ROHM	SMAFB36
PESD5V0X1BCAL	NEXPERIA	PS05TBUL2	PMEG6020AELRX	NEXPERIA	SMFB16	RB051L-40	ROHM	SMAB34
PESD5V0X1BCL	NEXPERIA	PS05TBUL2	PMEG6020ELRX	NEXPERIA	SMFB16	RB051LA-40	ROHM	SMAB34
PESD5V0X1ULD	NEXPERIA	PS05TSUL2	PMEG6020EP-Q	NEXPERIA	SMAB16	RB051LAM-40	ROHM	SMAFB34
PESD5V2S2UT	NEXPERIA	PG05HAS23	PMEG6020ER	NEXPERIA	SMFB16	RB055L-30	ROHM	SMAB33
PESD5Z5.0-Q	NEXPERIA	PG05FSESC	PMEG6020ETR-Q	NEXPERIA	SMFB16	RB055L-40	ROHM	SMAB34
PLVA653A	NEXPERIA	BZX84C5V6	PMEG6030EP	NEXPERIA	SMAFB36	RB055L-60	ROHM	SMAB36
PLZ20B	VISHAY	USFZ20V	PMEG6030ETP-Q	NEXPERIA	SMAFB36	RB055LA-40	ROHM	SMAB34
PMBD914	NEXPERIA	KDS4148S	PMEG60T20ELR	NEXPERIA	SMFB16	RB055LAM-40	ROHM	SMAFB34
PMEG2005AEA-Q	NEXPERIA	KDR412	PMEG60T30ELP	NEXPERIA	SMAFB36	RB056L-40	ROHM	SMAB34
PMEG2010AEH	NEXPERIA	SMFB13	PSMAJ400CA	DIODES	PG36JSSMAF	RB058L-40	ROHM	SMAB34
PMEG2010EH-Q	NEXPERIA	KDR713W	PTVS3V3D1BAL	NEXPERIA	PS03CBUL2	RB058LAM-60	ROHM	SMAFB36
PMEG2010ER	NEXPERIA	SMFB13	PTVS4V5D1BL	NEXPERIA	PG03HSUL2	RB060L-40	ROHM	SMAB34
PMEG3001EEF	NEXPERIA	KDR730EL2A	PTZ10B	ROHM	SMAZ10V	RB060LAM-40	ROHM	SMAFB34
PMEG3002AEB	NEXPERIA	KDR720E	PTZ12B	ROHM	SMAZ12V	RB060M-60	ROHM	SMFB16
PMEG3002ESF	NEXPERIA	KDR720EL2A	PTZ15A	ROHM	SMAZ15V	RB060MM-30	ROHM	SMFB23H
PMEG3005EJ	NEXPERIA	KDR412	PTZ15B	ROHM	SMAZ15V	RB060MM-40	ROHM	SMFB14
PMEG3010CEH	NEXPERIA	SMFB13	PTZ16B	ROHM	SMAZ16V	RB060MM-60	ROHM	SMFB16
PMEG3010ER	NEXPERIA	SMFB13	PTZ18A	ROHM	SMAZ18V	RB068L100	ROHM	SMAB210
PMEG3010ESB	NEXPERIA	KDR530UL	PTZ18B	ROHM	SMAZ18V	RB068L100DD	ROHM	SMAB210
PMEG3015EH	NEXPERIA	SMFB23H	PTZ22B	ROHM	SMAZ22V	RB068L-60DD	ROHM	SMAB36
PMEG3020BER	NEXPERIA	SMFB23H	PTZ24A	ROHM	SMAZ24V	RB068LAM100	ROHM	SMAFB310
PMEG3020EH	NEXPERIA	SMFB23H	PTZ24B	ROHM	SMAZ24V	RB068MM-30	ROHM	SMFB23H
PMEG3020ER-Q	NEXPERIA	SMFB23H	PTZ27A	ROHM	SMAZ27V	RB068MM-40	ROHM	SMFB14
PMEG3030EP	NEXPERIA	SMAFB34	PTZ33B	ROHM	SMAZ33V	RB068MM-60	ROHM	SMFB16
PMEG4002EB	NEXPERIA	KDR730E	PTZ36B	ROHM	SMAZ36V	RB070M-30	ROHM	SMFB13
PMEG4002EJ	NEXPERIA	KDR729	PTZ5.1A	ROHM	SMAZ5.1V	RB070MM-30	ROHM	SMFB13
PMEG4002EL	NEXPERIA	KDR740UL	PTZ5.1B	ROHM	SMAZ5.1V	RB080L-30	ROHM	SMAB33
PMEG4005EGW-Q	NEXPERIA	KDR714W	PTZ5.6A	ROHM	SMAZ5.6V	RB085T-60	ROHM	MBRF10U60CTA
PMEG4005EH	NEXPERIA	SMFB14	PTZ5.6B	ROHM	SMAZ5.6V	RB085T-90	ROHM	MBRF10U100CTA
PMEG4005EJ	NEXPERIA	KDR412	PTZ7.5B	ROHM	SMAZ7.5V	RB088BM100	ROHM	MBRD10U100CT
PMEG4010EH	NEXPERIA	SMFB14	PTZxxB	ROHM	SMAZxxV	RB088BM150	ROHM	MBRD10U200CT
PMEG4010ER	NEXPERIA	SMFB14	PZU6.2B2	ROHM	KDZ6.2V-Y	RB088BM200	ROHM	MBRD10U200CT
PMEG4020ER	NEXPERIA	SMFB14	PZUxxBA	NEXPERIA	KDZxxV-Y	RB095B-60	ROHM	MBRD6U60CT
PMEG4030EP	NEXPERIA	SMAFB34	RB050L-40	ROHM	SMAB34	RB095BM-60	ROHM	MBRD6U60CT
PMEG4030ETR-Q	NEXPERIA	SMFB14	RB050L-60	ROHM	SMAB36	RB098BM100FH	ROHM	MBRD10U100CT

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
RB160L-40	ROHM	SMAB14	RB520S30	NEXPERIA	KDR730E	RBQ108M100AFH	ROHM	MBRD10U100CT
RB160L-60	ROHM	SMAB16	RB520S-30	ROHM	KDR730E	RBQ108M65A	ROHM	MBRD10U60CT
RB160L-90	ROHM	SMAB110	RB520S30T1G	ONSEMI	KDR730E	RBQ10T65A	ROHM	MBRF10U60CTA
RB160M-30	ROHM	SMFB13	RB520S-40	ROHM	KDR760E	RBQ10T65ANZ	ROHM	MBRF10U60CTA
RB160M-40	ROHM	SMFB14	RB520SM-30	ROHM	KDR730E	RBQ208M45AFH	ROHM	MBRD30U45CT
RB160M-60	ROHM	SMFB16	RB520VM-40FH	ROHM	KDR357	RBQ20T65A	ROHM	MBRF20U60CTA
RB160MM-30	ROHM	SMFB13	RB520ZS-30	ROHM	KDR730EL2A	RBQ30T65A	ROHM	MBRF30U60CTA
RB160MM-40	ROHM	SMFB14	RB521AS-40	ROHM	KDR740UL	RBQ30T65ANZ	ROHM	MBRF30U60CTA
RB160MM-60	ROHM	SMFB16	RB521CM-30	ROHM	KDR720F	RBR1L60ADD	ROHM	SMAB16
RB160VA-40	ROHM	USFB14	RB521CM-40	ROHM	KDR730F	RBR1MM40ATF	ROHM	SMFB14
RB160VYM-40FH	ROHM	USFB14	RB521CS-30	ROHM	KDR720F	RBR1MM60A	ROHM	SMFB16
RB161L-40	ROHM	SMAB14	RB521G-30	ROHM	KDR720V	RBR20T60AHZ	ROHM	MBRF20U60CTA
RB161M-20	ROHM	SMFB13	RB521G-30	SEMTECH	KDR720V	RBR2L40ADD	ROHM	SMAB34
RB162L-40	ROHM	SMAB14	RB521S30	NEXPERIA	KDR720E	RBR2MM30A	ROHM	SMFB23H
RB162M-40	ROHM	SMFB14	RB521S-30	ROHM	KDR720E	RBR2MM40ATF	ROHM	SMFB14
RB162M-60	ROHM	SMFB16	RB521S-30	SEMTECH	KDR720E	RBR2MM60B	ROHM	SMFB16
RB162MM-40	ROHM	SMFB14	RB521S-40	ROHM	KDR720E	RBR2MM60C	ROHM	SMFB16
RB162MM-60	ROHM	SMFB16	RB521SM-30	ROHM	KDR720E	RBR3L40B	ROHM	SMAB34
RB168M-60	ROHM	SMFB16	RB521SM-30FH	ROHM	KDR720E	RBR3L60B	ROHM	SMAB36
RB168MM-40	ROHM	SMFB14	RB521SM-40	ROHM	KDR720E	RBR5L60ADD	ROHM	SMAB36
RB215T-90	ROHM	MBRF20U100CTA	RB521SM-60	ROHM	KDR760E	RCLAMP0502B	SEMTECH	PG05EAESM
RB225T100	ROHM	MBRF30U100CTA	RB530CM-30	ROHM	KDR730F	RCLAMP0504F	SEMTECH	PS05RVUS6
RB400D	ROHM	KDR400S	RB530S-30	ROHM	KDR720E	RClamp0521Z	SEMTECH	PS05TBEL2D
RB420D	ROHM	KDR105S	RB530SM-30	ROHM	KDR730E	RCLAMP0524P	SEMTECH	PS05SVU10
RB421D	ROHM	KDR105S	RB530VM-30	ROHM	KDR357	RClamp0531T	SEMTECH	PS05TBUL2
RB491D	ROHM	KDR521T	RB531SM-30	ROHM	KDR720E	RClamp0544P	SEMTECH	PS05SVU10
RB500V-40	ROHM	KDR357	RB540VM-30	ROHM	KDR729	RClamp0551P	SEMTECH	PS05TBUL2
RB500V-40	SEMTECH	KDR357	RB550VA-30	ROHM	USFB13A	RCLAMP0821P	SEMTECH	PG05TBUL2
RB500VM-40	ROHM	KDR357	RB550VAM-30	ROHM	USFB13A	RClamp2581ZC	SEMTECH	PD03TCBEL2D
RB501SM-30	ROHM	KDR720E	RB550VYM-30FH	ROHM	USFB13A	RD100S-B	NEC	KDZ100V
RB501V-40	ROHM	KDR357	RB551V-30	ROHM	KDR412	RD15S-B3	NEC	KDZ15V-Y
RB501V-40	SEMTECH	KDR357	RB551VM-30	ROHM	KDR412	RD2.4S-B	NEC	KDZ2.4V
RB501VM-40	ROHM	KDR357	RB551VU-30	ROHM	KDR412	RD20S	RENESAS	KDZ20V-Y
RB510SM-30	ROHM	KDR720E	RB706F-40	ROHM	KDR731	RD27S	NEC	KDZ27V
RB511SM-30	ROHM	KDR720E	RB751SM-40	ROHM	KDR720E	RD5.1M-B1	NEC	BZX84C5V1
RB511VM-30	ROHM	KDR357	RB751V40	NEXPERIA	KDR357	RD6.2UM-B1	NEC	KDZ6.2EV-Y
RB511VM-40	ROHM	KDR357	RB751V-40	ROHM	KDR377	RD6.8FM-B	NEC	SMAZ6.8V
RB520CS-30	ROHM	KDR730V	RB751V40T1G	ONSEMI	KDR357	RD6.8UM-B1	NEC	KDZ6.8EV-Y
RB520CS3002L	NEXPERIA	KDR740UL	RBQ10865A	ROHM	MBRD10U60CT	RD9.1M-B	NEC	BZX84C9V1
RB520G-30	ROHM	KDR730V	RBQ108GE65A	ROHM	MBRD10U60CT	RDxxS-B	NEC	KDZxxV

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
RESD1CAN	ROHM	PG24EAS23	S1M	ONSEMI	GS1M	SD05C-01FTG	LITTELFUSE	PG05GBUSC
RESD1CANYFH	ROHM	PG24EAS23	S1M	VISHAY	GS1M	SD103AWS	DIODES	KDR357
RF01VM2S	ROHM	KDS135	S2MA	DIODES	GS1M	SD103AWS	VISHAY	KDR357
RF071L4S	ROHM	ES1G	S3M	VISHAY	GS3M	SD103BWSQ	DIODES	KDR729
RF101L2S	ROHM	ES1D	S3MB	DIODES	GS3MB	SD107WS	DIODES	KDR357
RF101L4S	ROHM	ES1G	SA10QA04	NIEC	USFB14	SD12	SEMTECH	PG12GSUSC
RF2L6S	ROHM	ES2JA	SARS01	SANKEN	1N4006G	SD12C-01FTG	LITTELFUSE	PG12FBUSC
RFN10BM6S	ROHM	U8A6CD	SARS05	SANKEN	GS1K	SD15C-01FTG	LITTELFUSE	PG15FBUSC
RFN10BM6SFH	ROHM	U10A6CDC	SARS05VR	SANKEN	GS1K	SD24-01FTG	LITTELFUSE	PG24GSUSC
RFNL5BM6S	ROHM	U5A6CD	SB160W-60	SEMTECH	SMFB16	SD24C-01FTG	LITTELFUSE	PG24EBUSC
RFV5BM6SFH	ROHM	U5A6CD	SBAS116LT1G	ONSEMI	KDS4148S	SDB0540	AUK	KDR714W
RFX10TF6SC9	ROHM	U10A6CI	SBAS16HT1G	ONSEMI	KDS4148U	SDB156HT	SEMTECH	USFB16L
RGP10M	VISHAY	FR107G	SBAS16HT3G	ONSEMI	KDS4148U	SDC15	SEMTECH	PG12GCS23
RHRD660S9A	ONSEMI	U8A6CD	SBAS16XV2T1G	ONSEMI	KDS160E	SDM02U30LP3	DIODES	KDR720EL2A
RS1J	DIODES	GR1J	SBAS20HT1G	ONSEMI	KDS135	SDM10K45	DIODES	KDR357
RS1J	ONSEMI	GR1J	SBAS20LT1G	ONSEMI	KDS135S	SDM20U30	DIODES	KDR720E
RS1M	DIODES	GR1M	SBAS21LT1G	ONSEMI	KDS135S	SDM20U40	DIODES	KDR730E
RS1M	ONSEMI	GR1M	SBAS40-04LT1G	ONSEMI	BAT54S	SDM20U40Q	DIODES	KDR730E
RS3G	DIODES	GS3G	SBAT54ALT1G	ONSEMI	KDR720S	SDS7000	AUK	BAV99
RS3JB	DIODES	ES2J	SBAT54CLT1G	ONSEMI	BAT54C	SDS7000F	AUK	KDS226
RS3M	DIODES	GR3M	SBAT54CWT1G	ONSEMI	KDR731	SESDONCAN1LT1G	ONSEMI	PG24DAS23
RSA30L	ROHM	PG24LSSMAF	SBAT54SLT1G	ONSEMI	BAT54S	SF10KC60M	SHINDENGEN	U10A6CIC
RSB16V	ROHM	PG12GSUSC	SBAV199LT3G	ONSEMI	BAV99	SF10L60U	SHINDENGEN	U10A6CI
RSB18V	ROHM	PG15FBUSC	SBAV70LT1G	ONSEMI	BAV70	SF34	DIODES	SF34G
RSB27V	ROHM	PG24EBUSC	SBAV70LT3G	ONSEMI	BAV70	SF8L60	SHINDENGEN	U8A6CI
RSB6.8S	ROHM	PG05FBESC	SBAV70WT1G	ONSEMI	KDS121	SFW01U60S-AH	SEMTECH	SMFB16
RSB6.8S	ROHM	PG05FBESC	SBAV99LT1G	ONSEMI	BAV99	SG10SC4M	SHINDENGEN	MBRF10U45CTA
RSB6.8SFH	ROHM	PG05FBESC	SBAV99LT3G	ONSEMI	BAV99	SG10SC6M	SHINDENGEN	MBRF10U60CTA
RSB6.8SFH	ROHM	PG05FBESC	SBAV99WT1G	ONSEMI	KDS122	SG10SC9M	SHINDENGEN	MBRF10U100CTA
RSB6.8SM	ROHM	PG05FBESC	SBR0560S1	DIODES	SMFB16	SG10TC15M	SHINDENGEN	MBRF10U150CTA
RSX101M-30	ROHM	SMFB13	SBR1045CTL	DIODES	MBRD10U60CT	SG15SC4M	SHINDENGEN	MBRF15U45CTA
RSX101MM-30	ROHM	SMFB13	SBR20A200CTFP	DIODES	MBRF20U200CTA	SG15SC6M	SHINDENGEN	MBRF20U60CTA
RSX201L-30	ROHM	SMAB33	SBR20M150D1Q	DIODES	MBRD20U150CT	SG20SC6M	SHINDENGEN	MBRF20U60CTA
RSX301L-30	ROHM	SMAB33	SBR2M60S1FQ	DIODES	SMFB16	SG20SC9M	SHINDENGEN	MBRF20U100CTA
S1D	ONSEMI	GS1D	SBR2U150SA	DIODES	SMAB210	SG20TC15M	SHINDENGEN	MBRF20U150CTA
S1G	DIODES	GS1G	SBR2U30SA	DIODES	SMAB33	SG30SC6M	SHINDENGEN	MBRF30U60CTA
S1G	ONSEMI	GS1G	SC1333-01ETG	LITTELFUSE	PS03CBUL2	SG8SC4M	SHINDENGEN	MBRF10U45CTA
S1G	VISHAY	GS1G	SCS210AM	ROHM	SMBRG10A65BIS4	SJPB-D4	SANKEN	SMAB14
S1J	VISHAY	GS1J	SD05	SEMTECH	PG05HSUSC	SJPB-L4	SANKEN	SMAB34
S1M	DIODES	GS1M	SD05C	SEMTECH	PG05GBUSC	SJPB-L6	SANKEN	SMAB36

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
SJPX-F2	SANKEN	ES1D	SMAJ28CA	LITTELFUSE	PG24LSSMAF	SMBJ33CA	ONSEMI	PG36LSSMB
SJPX-H3	SANKEN	ES2FA	SMAJ28CA	STMICRO	PG24LSSMAF	SMBJ33CA	VISHAY	PG36LSSMB
S-LR1105LT1G	ONSEMI	PG24FAS23	SMAJ28CA	VISHAY	PG24LSSMAF	SMBJ33CAQ	DIODES	PG36LSSMB
SM05	SEMTECH	PG05HAS23	SMAJ30A	VISHAY	PG24LSSMAF	SMBJ36A	DIODES	PG36LSSMB
SM15T30CAY	STMICRO	PG24MSSMC	SMAJ30CA	STMICRO	PG36JSSMAF	SMBJ36CA	LITTELFUSE	PG36LSSMB
SM15T33CAY	STMICRO	PG24MSSMC	SMAJ30CA	VISHAY	PG36JSSMAF	SMBJ36CA	VISHAY	PG36LSSMB
SM15T36CAY	STMICRO	PG36MSSMC	SMAJ30CAQ	DIODES	PG24LSSMAF	SMBJ36CAQ	DIODES	PG36LSSMB
SM15T39CA	STMICRO	PG36MSSMC	SMAJ33A	STMICRO	PG36JSSMAF	SMCJ24A	LITTELFUSE	PG24MSSMC
SM1MA142WAT1G	ONSEMI	KDS120	SMAJ33CA	STMICRO	PG36JSSMAF	SMCJ24CA	VISHAY	PG24MSSMC
SM1MA142WKT1G	ONSEMI	KDS121	SMAJ36CA	DIODES	PG36JSSMAF	SMCJ28A	LITTELFUSE	PG24MSSMC
SM24CANA-02HTG	LITTELFUSE	PG24DAS23	SMAJ36CA	VISHAY	PG36JSSMAF	SMCJ28CA	LITTELFUSE	PG24MSSMC
SM36	SEMTECH	PG36FSS23	SMAJ40A	VISHAY	PG36JSSMAF	SMCJ28CA	VISHAY	PG24MSSMC
SM36-02HTG	LITTELFUSE	PG36FSS23	SMAJ40CA	DIODES	PG36JSSMAF	SMCJ30CA	LITTELFUSE	PG24MSSMC
SM4T18CAY	STMICRO	PG24LSSMAF	SMAJ40CA	STMICRO	PG36JSSMAF	SMCJ33CA	VISHAY	PG36MSSMC
SM4T28CAY	STMICRO	PG24LSSMAF	SMAZ24	DIODES	SMAZ24V	SMDJ26CA	LITTELFUSE	PG24MSSMC
SM4T33AY	STMICRO	PG24LSSMAF	SMAZ27	DIODES	SMAZ27V	SMF05	SEMTECH	PG05GBUSV
SM4T33CAY	STMICRO	PG24LSSMAF	SMAZ5926B	VISHAY	SMAZ11V	SML4745A	VISHAY	SMAZ16V
SM4T35CAY	STMICRO	PG24LSSMAF	SMAZ5929B	VISHAY	SMAZ15V	SMMBD7000LT3G	ONSEMI	BAV99
SM4T39CAY	STMICRO	PG36JSSMAF	SMAZ5V1	DIODES	SMAZ5.1V	SMMBD914LT3G	ONSEMI	KDS193
SM6T27CAY	STMICRO	PG24LSSMB	SMBJ12CA	LITTELFUSE	PG24LSSMB	SMMDL914T1G	ONSEMI	KDS4148U
SM6T30CAY	STMICRO	PG24LSSMB	SMBJ15A	DIODES	PG24LSSMB	SP1003-01ETG	LITTELFUSE	PG05FSUL2
SM6T33CAY	STMICRO	PG24LSSMB	SMBJ15A	VISHAY	PG24LSSMB	SP1005-01ETG	LITTELFUSE	PS05DBUL2
SM6T36CA	STMICRO	PG36LSSMB	SMBJ17A	LITTELFUSE	PG24LSSMB	SP1333-01UTG	LITTELFUSE	PS03CBEL2A
SM6T36CAY	STMICRO	PG36LSSMB	SMBJ18CA	DIODES	PG24LSSMB	SP3021-01ETG	LITTELFUSE	PS05TBUL2
SM6T39CA	STMICRO	PG36LSSMB	SMBJ20A	DIODES	PG24LSSMB	SP3022-01ETG	LITTELFUSE	PS05TBUL2
SM6T39CAY	STMICRO	PG36LSSMB	SMBJ22CA	DIODES	PG24LSSMB	SP3213-01UTG	LITTELFUSE	PS05VBEL2D
SM712	SEMTECH	PG712FBS23	SMBJ24A	DIODES	PG24LSSMB	SP4021-01FTG	LITTELFUSE	PG05GBUSC
SM712-02HTG	LITTELFUSE	PG712FBS23	SMBJ24A	LITTELFUSE	PG24LSSMB	SPHV12-01ETG-C	LITTELFUSE	PG12DBUL2
SMA6J24CAQ	DIODES	PG24LSSMAF	SMBJ24CA	LITTELFUSE	PG24LSSMB	SRV05-4HTG	LITTELFUSE	PS05RVS26
SMA6T28CAY	STMICRO	PG24LSSMAF	SMBJ24CA	VISHAY	PG24LSSMB	SS14	ONSEMI	SMAB14
SMA6T36AY	STMICRO	PG36JSSMAF	SMBJ24CAQ	DIODES	PG24LSSMB	SS14	VISHAY	SMAB14
SMAJ16CA	VISHAY	PG24LSSMAF	SMBJ26A	VISHAY	PG24LSSMB	SS14FL	ONSEMI	SMFB14
SMAJ18CA	DIODES	PG24LSSMAF	SMBJ26CA	DIODES	PG24LSSMB	SS16	ONSEMI	SMAB16
SMAJ18CA	VISHAY	PG24LSSMAF	SMBJ28A	DIODES	PG24LSSMB	SS16	VISHAY	SMAB16
SMAJ22CA	DIODES	PG24LSSMAF	SMBJ28A	LITTELFUSE	PG24LSSMB	SS1H10	VISHAY	SMAB110
SMAJ24CA	LITTELFUSE	PG24LSSMAF	SMBJ28CA	DIODES	PG24LSSMB	SS24FL	ONSEMI	SMFB14
SMAJ24CA	VISHAY	PG24LSSMAF	SMBJ28CA	VISHAY	PG24LSSMB	SS24S	VISHAY	SMAB34
SMAJ26CA	VISHAY	PG24LSSMAF	SMBJ30A	VISHAY	PG24LSSMB	SS26S	VISHAY	SMAB16
SMAJ28A	LITTELFUSE	PG24LSSMAF	SMBJ30CA	DIODES	PG24LSSMB	SS2FL4	VISHAY	SMFB14
SMAJ28A	VISHAY	PG24LSSMAF	SMBJ30CA	VISHAY	PG24LSSMB	SSA210	ONSEMI	SMAB210

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
TFZV5.1B	ROHM	USFZ5.1V	TPSMC36CA	LITTELFUSE	PG36MSSMC	VESD05-02V-G-08	VISHAY	PG05FSESC
TFZV5.6B	ROHM	USFZ5.6V	TPSMD28A	LITTELFUSE	PG24MSSMC	VESD05A1A-HD1	VISHAY	PG05GSUL2
TFZV6.2B	ROHM	USFZ6.2V	TPSMD28CA	LITTELFUSE	PG24MSSMC	VESD05A1B-02V	VISHAY	PG05FSESC
TFZV6.8B	ROHM	USFZ6.8V	TRS10A65F	TOSHIBA	SMBRG10A65BIS4	VLIN1626-02G	VISHAY	PG1524DBUSC
TFZV8.2B	ROHM	USFZ8.2V	uClamp0301PQ	SEMTECH	PS03CBUL2	VS-15MQ40NTRPbF	VISHAY	SMAB33
TFZV9.1B	ROHM	USFZ9.1V	uClamp0511PQ	SEMTECH	PS05DBUL2	VS-3EGU06-M3	VISHAY	ES3JB
TFZxxB	ROHM	USFZxxV	Uclamp0541Z	SEMTECH	PS05CBEL2A	VSSAF5L45	VISHAY	SMAFAB54J
TPD1E01B04DPLR	TI	PS05VBUL2	uClamp0571P	SEMTECH	PG05KS1610D2	XMC7K24CA	VISHAY	PG24MSSMC
TPD1E01B04DPYRQ1	TI	PS05TBUL2	uClamp0581P	SEMTECH	PG05GSUL2	YFZVFH10B	ROHM	USFZ10V
TPD1E01B04-Q1	TI	PS05VBUL2	uClamp0871P	SEMTECH	PG08JS1610D2	YFZVFH5.6B	ROHM	USFZ5.6V
TPD1E05U06DPYR	TI	PS05TSUL2	uClamp1071P	SEMTECH	PG12HS1610D2	YFZVFH6.2B	ROHM	USFZ6.2V
TPD1E10B06DPYR	TI	PS05CBUL2	uClamp1201P	SEMTECH	PG12DBUL2	YFZVFH6.8B	ROHM	USFZ6.8V
TPD1E10B06DYAR	TI	PS05CBESC	uCLAMP1271P	SEMTECH	PG12HS1610D2	YFZVFH9.1B	ROHM	USFZ9.1V
TPD1E6B06DPLR	TI	PG05DBEL2A	uCLAMP1871P	SEMTECH	PG18HS1610D2	YFZVFHxxB	ROHM	USFZxxV
TPD2E1B06DRLR	TI	PG05GXTE6	UCLAMP3301H	SEMTECH	PG03FSESC	YG802C09R	FUJI	MBRF10U100CTA
TPD4E02B04DQAR	TI	PS05SVU10	UDZLV100	ROHM	KDZ100VL	YG805C04R	FUJI	MBRF20U45CTA
TPD4E02B04QDQARQ1	TI	PS05SVU10	UDZLV150	ROHM	KDZ150VL	YG805C10R	FUJI	MBRF20U100CTA
TPD4E05U06DQAR	TI	PS05SVU10	UDZLV82	ROHM	KDZ82V	YG865C04R	FUJI	MBRF20U45CTA
TPD4E05U06QDQARQ1	TI	PS05SVU10	UDZSTFxxB	ROHM	KDZxxV-Y	YG865C15R	FUJI	MBRF20U150CTA
TPSMA20A	VISHAY	PG24LSSMAF	UDZSxxB	ROHM	KDZxxV-Y	YG902C2R	FUJI	MBRF10U200CTA
TPSMA24A	VISHAY	PG24LSSMAF	UDZVFHxxB	ROHM	KDZxxV-Y	YG906C2R	FUJI	MBRF20U200CTA
TPSMA27A	VISHAY	PG24LSSMAF	UDZVxxB	ROHM	KDZxxV-Y	YG911S2R	FUJI	MBRF10U200
TPSMA33A	VISHAY	PG24LSSMAF	UDZxxB	ROHM	KDZxxV-Y	YG975C6R	FUJI	U20A6CIC
TPSMA6L24A	LITTELFUSE	PG24LSSMAF	UF4002	VISHAY	UF4002G	YG982S6R	FUJI	U10A6CI
TPSMA6L33A	LITTELFUSE	PG36JSSMAF	UF4004	VISHAY	UF4004G	YG985C6R	FUJI	U20A6CIC
TPSMB18A	VISHAY	PG24LSSMB	UF4007	ONSEMI	UF4007G	ZLLS350	DIODES	KDR377E
TPSMB24A	VISHAY	PG24LSSMB	UF4007	VISHAY	UF4007G			
TPSMB26CA-VR	LITTELFUSE	PG24LSSMB	UFZVxxB	ROHM	KDZxxV			
TPSMB27A	VISHAY	PG24LSSMB	UG2D	VISHAY	SF24G			
TPSMB28CA-VR	LITTELFUSE	PG24LSSMB	UG4D	VISHAY	SF44G			
TPSMB30A	VISHAY	PG24LSSMB	UMZ6.8NUM	ROHM	PG05BAUSM			
TPSMB30CA	LITTELFUSE	PG24LSSMB	US1D	VISHAY	HS1D			
TPSMB33A	LITTELFUSE	PG24LSSMB	US1G	DIODES	HS1G			
TPSMB33A	VISHAY	PG24LSSMB	US1G	VISHAY	HS1G			
TPSMB33CA	LITTELFUSE	PG24LSSMB	US1M	DIODES	HS1M			
TPSMB36A	VISHAY	PG36LSSMB	US1M	SEMTECH	HS1M			
TPSMB36CA	LITTELFUSE	PG36LSSMB	US1M	VISHAY	HS1M			
TPSMB39A	VISHAY	PG36LSSMB	US2MA	ONSEMI	HS1M			
TPSMB39CA	LITTELFUSE	PG36LSSMB	VBUS05L1-DD1	VISHAY	PG05TBUL2A			
TPSMC27A	LITTELFUSE	PG24MSSMC	VCUT05E1-SD0	VISHAY	PS05CBEL2A			

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MOSFET

MOSFET	107~121
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V_{DSS}: 20V ~ 60V

V _{DSS} [V]	I _D [A]	ULP-3 ULP-3(1)	VSM	ESM	TES6	USM	US6	SOT-23	PDFN56	DPAK(1) DPAK(3)	TO-220IS(1)
		 (1.0 X 0.6)	 (1.2 X 0.8)	 (1.6 X 0.85)	 (1.6 X 1.2)	 (2.0 X 1.25)	 (2.0 X 1.25)	 (2.93 X 1.3)	 (4.9 X 6.0)	 (6.6 X 6.1)	
20	0.4	KML0D4N20UL	KML0D4N20V	KML0D4N20E							
	3							KMA3D0N20SA			
	3.6							KMA3D6N20SA			
-20	-0.3	KML0D3P20UL	KML0D3P20V								
	-0.4			KML0D4P20E							
	-2.4							KMA2D4P20SA			
	-3.7							KMA3D7P20SA			
-24	-6							KU390P02SZ			
30	0.1		KTK5132V	KTK5132E	KTK7132E (Dual)	KTK5132U		KTK5132S			
	4							KMB4D0N30SA			
	4.2							KMD4D2N30S			
	62									KU2303D	
	79									KU2307D	
	100								KU024N03C		
-30	-0.05		KTJ6131V	KTJ6131E							
	-3							KMB3D0P30SA			
	-70								KU080P03C		
40	3.5							KMB3D5N40SA			
-40	-2.2							KU1600P04ST2			
	-39.5										KU170P04FT2
	-50									KU170P04DT2	
60	0.3			2N7002KE		2N7002KU	2N7002KDU (Dual)	2N7002KA 2N7002KB			
	2							KMB2D0N60SA			
-60	-33									KU350P06DT2	

MOSFET

$V_{DSS} : 100V$

V_{DSS} [V]	I_D [A]	SOT-23	DFN22D	PDFN33 PDFN33D	PDFN56 PDFN56D / (1)	DPAK(1) DPAK(3)	TO-220IS(1)
		 (2.93 X 1.3)	 (2.0 X 2.0)	 (3.15 X 3.1)	 (4.9 X 6.0)	 (6.6 X 6.1)	
100	0.22		KU6KDN10MZ (Dual)				
	1.3	KU3600N10SZA					
	4.7			KU3600DN10RZ (Dual)	KU3600DN10CZ (Dual)		
	5.4			KU3600N10RZ			
	23						KU310N10F
	27					KU310N10D	
	32					KUS220N10DA	
	55						KUS086N10FA
	63					KUS086N10DA	
	80						KUS045N10FA

V_{DSS}: 200V ~ 525V

V _{DSS} [V]	I _D [A]	SOT-223 SOT-223(1)	DPAK(1) DPAK(3)	TO-220IS(1)	TO-220AB(1)
		 (6.5 X 3.5)	 (6.6 X 6.1)		
200	1	KF4N20LW			
	3.6		KF4N20LD		
	15		KF19N20D		
	19			KF19N20F	
	66				KU210N20PS1
250	4.4		KF5N25D		
	7.5		KF9N25D		
	9			KF9N25F	
	13		KF16N25D		
	16			KF16N25F	
400	2	KF3N40W			
	4.3		KF5N40D		
	4.4			KF5N40F	
	6.5		KF9N40D		
	7			KF9N40F	
500	2.5		KF3N50DZ		
	3			KF3N50FZ	
	4.3		KF5N50DZ		
	5			KF5N50FZA	
	5.5		KF7N50D		
	7			KF7N50F	
	9			KF9N50F	
	11			KF11N50F	
	13			KF13N50F	

V_{DSS}: 600V ~ 800V

V _{DSS} [V]	I _D [A]	SOT-23	DPAK(1) DPAK(3)	IPAK(2)	TO-220IS(1)	TO-220ISW	TO-247
		 (2.93 X 1.3)	 (6.6 X 6.1)				
600	0.02	KF500KN60SP2Z*					
	1		KF1N60D				
	2		KF2N60D	KF2N60I	KF2N60F		
	2.3		KF3N60D	KF3N60I			
	3				KF3N60F		
	3.2		KF4N60D				
	3.5		KF5N60D				
	4				KF4N60F		
	4.5				KF5N60F		
	5		KF6N60D				
	6				KF6N60F		
	7				KF7N60F		
	8				KF8N60F		
	10		KP580N60DM3 KP580N60DM3Z		KP580N60FM3 KP580N60FM3Z	KP580N60FWM3 KP580N60FWM3Z	
	11		KP380N60DM3 KP380N60DM3Z		KP380N60FM3 KP380N60FM3Z	KP380N60FWM3 KP380N60FWM3Z	
	12				KF12N60F		
	15		KP280N60DM3 KP280N60DM3Z		KP280N60FM3 KP280N60FM3Z	KP280N60FWM3 KP280N60FWM3Z	
	20				KP190N60FM3 KP190N60FM3Z KP190N60FM3ZA	KP190N60FWM3 KP190N60FWM3Z KP190N60FWM3ZA	KP190N60KM3Z
30				KP125N60FM3			
38				KP099N60FM3		KP099N60KM3	
650	3.6				KF4N65F		
	4.4		KF5N65D				
	5				KF5N65F		
	7				KF7N65F		
	8		KP580N65DM3		KP580N65FM3		
	11				KP380N65FM3		
	15				KP280N65FM3		
20				KP190N65FM3			
680	7				KF7N68F		
	10				KF10N68F		
	12				KF12N68F		
700	6			KF6N70F			
800	2.7		KF3N80D				
	3				KF3N80F		
	4				KF4N80F		
	7				KF7N80F		

Note) *: Under development

■ S-MOSFET

Type No.	Mark	AEC-Q	Internal circuit	Max. Ratings				I _{DSS} (μA)			V _{th} (V)				R _{DSON} (mΩ)				PKG
				V _{DSS} (V)	V _{GSS} (V)	I _D (A)	P _D (W)	Max.	@V _{Ds} (V)	@V _{Gs} (V)	Min.	Max.	@V _{Ds} (V)	@I _D (μA)	Typ.	Max.	@V _{Gs} (V)	@I _D (A)	
KML0D4N20UL	LB	●		20	±6	0.4	0.28	0.1	16	0	0.45	1	V _{GS}	250	410	700	4.5	0.4	ULP-3
KML0D4N20V	LA	○		20	±6	0.4	0.15	0.1	16	0	0.45	1	V _{GS}	250	410	700	4.5	0.4	VSM
KML0D4N20E	C2	○		20	±6	0.4	0.21	0.1	16	0	0.45	1	V _{GS}	250	410	700	4.5	0.4	ESM
KML0D3P20UL	LC	●		-20	±6	-0.3	0.28	-0.1	-16	0	-0.45	-1	V _{GS}	-250	800	1200	-4.5	-0.3	ULP-3
KML0D3P20V	LB	●		-20	±6	-0.3	0.15	-0.1	-16	0	-0.45	-1	V _{GS}	-250	800	1200	-4.5	-0.3	VSM
KML0D4P20E	C3	●		-20	±6	-0.35	0.21	-0.1	-16	0	-0.45	-1	V _{GS}	-250	800	1200	-4.5	-0.35	ESM
KTK5132V	KB	●		30	±20	0.1	0.1	1	30	0	0.5	1.5	3	100	4000	7000	2.5	0.01	VSM
KTK5132E	KB	●		30	±20	0.1	0.1	1	30	0	0.5	1.5	3	100	4000	7000	2.5	0.01	ESM
KTK5132U	KB	●		30	±20	0.1	0.2	1	30	0	0.5	1.5	3	100	4000	7000	2.5	0.01	USM
KTK5132S	KB	●		30	±20	0.1	0.2	1	30	0	0.5	1.5	3	100	4000	7000	2.5	0.01	SOT-23
KTK7132E	AL	●		30	±20	0.1	0.2	1	30	0	0.5	1.5	3	100	4000	7000	2.5	0.01	TES6
KTJ6131V	M1	●		-30	±20	-0.05	0.1	-1	-30	0	-0.5	-1.5	-3	-100	20000	40000	-2.5	-0.01	VSM
KTJ6131E	EB	●		-30	±20	-0.05	0.1	-1	-30	0	-0.5	-1.5	-3	-100	20000	40000	-2.5	-0.01	ESM
2N7002KDU	DU	○		60	±20	0.3	0.27	1	60	0	1	2	V _{GS}	250	1200	1500	10	0.3	US6
2N7002KU	KU	○		60	±20	0.3	0.27	1	60	0	1	2	V _{GS}	250	1200	1500	10	0.3	USM
2N7002KE	KE	○		60	±20	0.3	0.27	1	60	0	1	2	V _{GS}	250	1200	1500	10	0.3	ESM
2N7002KB	WE	●		60	±20	0.3	0.4	10	60	0	1	2.5	V _{GS}	250	2100	2900	4.5	0.2	SOT-23
2N7002KA	2P	○	60	±20	0.3	0.35	1	60	0	1.1	2.35	V _{GS}	250	1700	2700	5	0.05	SOT-23	
														-	2300	10	0.5		

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

MOSFET

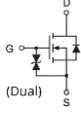
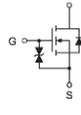
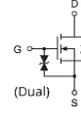
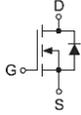
MOSFET

Low Voltage MOSFET

Type No.	Mark	AEC-Q	Internal circuit	Max. Ratings				V _{th} (V)				R _{DS(ON)} (mΩ)				Q _g (nC)		PKG
				V _{BSS} (V)	V _{GSS} (V)	I _D (A)	P _D (W)	Min.	Max.	@V _{DS} (V)	@I _D (μA)	Typ.	Max.	@V _{GS} (V)	@I _D (A)	Typ.	@V _{GS} (V)	
KMA3D0N20SA	KNB	○		20	±12	3	1.25	0.5	1.5	V _{GS}	250	38	55	4.5	2.5	4.0	4.5	SOT-23
KMA3D6N20SA	KNC	●		20	±12	3.6	1.25	0.6	1.5	V _{GS}	250	32	45	4.5	2.5	6.6	4.5	SOT-23
KMA2D4P20SA	KB2	●		-20	±12	-2.4	1.25	-0.6	-1.5	V _{GS}	-250	83	100	-4.5	-2.4	4	-4.5	SOT-23
KMA3D7P20SA	KNH	○		-20	±12	-3.7	1.25	-0.55	-1.5	V _{GS}	-250	65	76	-4.5	-2.8	4.37	-4.5	SOT-23
KU390P02SZ	SP1	●		-24	±8	-6	2	-0.3	-0.9	V _{GS}	-250	42	55	-4.5	-4	12.4	-4.5	SOT-23
KMB4D0N30SA	KNA	●		30	±20	4	1.25	1	3	V _{GS}	250	38	47	10	3.5	6	10	SOT-23
KMD4D2N30S	KNE	●		30	±20	4.2	1.25	1	1.8	V _{GS}	250	32	42	10	4.2	7.2	10	SOT-23
KU2303D	-	●		30	±20	68	52	1	3	V _{GS}	250	11.0	14.2	4.5	20	9.6	4.5	DPAK(1) DPAK(3)
												5.7	6.8	10	30	18.4	10	
KU2307D	-	●		30	±20	79	57	1	3	V _{GS}	250	8.4	10.1	4.5	30	13.1	4.5	DPAK(1) DPAK(3)
												4.5	5.4	10	30	24.6	10	
KU024N03C	-	●		30	±20	100	40	1.2	2.5	V _{GS}	250	2.6	3.3	4.5	20	74	10	PDFN56
												1.95	2.4	10	30			
KMB3D0P30SA	KPA	●		-30	±20	-3	1.25	-1	-3	V _{GS}	-250	64	80	-10	-3.0	6.3	-10	SOT-23
KU080P03C	-	●		-30	±20	-70	80	-1	-2	V _{GS}	-250	7.8	10	-4.5	-2	42	-4.5	PDFN56
												6.5	8	-10	-2			
KMB3D5N40SA	MA1	○		40	±20	3.5	1.25	1	3	V _{GS}	250	36	45	10	3.5	6.4	10	SOT-23
KU1600P04ST2	KPC	○		-40	±20	-2.2	1.25	-1	-2.1	V _{GS}	250	120	160	-10	-2.2	5.5	10	SOT-23
												165	230	-4.5	-1.5			
KU170P04FT2	-	●		-40	±20	-39.5	44.6	-1	-3	V _{GS}	-250	12	17	-10	-20	51	-10	TO-220IS(1)
KU170P0DT2	-	●		-40	±20	-50	104	-1	-3	V _{GS}	-250	12	17	-10	-20	51	-10	DPAK(3)
KMB2D0N60SA	KND	●		60	±20	2	1.25	1.5	3	V _{GS}	250	125	160	10	2	4.8	10	SOT-23
KU350P06DT2	-	●		-60	±20	-33	69.4	-1.5	-2.5	V _{GS}	-250	28	35	-10	-20	35	-10	DPAK(3)

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

Low Voltage MOSFET

Type No.	AEC-Q	Internal circuit	Max. Ratings				V _{th} (V)				R _{DS(ON)} (mΩ)				Q _g (nC)		PKG
			V _{DSS} (V)	V _{GSS} (V)	I _D (A)	P _D (W)	Min.	Max.	@V _{DS} (V)	@I _D (μA)	Typ.	Max.	@V _{GS} (V)	@I _D (A)	Typ.	@V _{GS} (V)	
KU6KDN10MZ	●		100	±20	0.22	0.57	1	2.5	V _{GS}	250	2300	6000	10	0.11	0.7	10	DFN22D
KU3600N10SZA	●		100	±18	1.3	1.25	1	2.5	V _{GS}	250	300	360	10	0.6	3.3	10	SOT-23
KU3600N10RZ	●		100	±16	5.4	21.5	1	2.5	V _{GS}	250	300	360	10	0.8	4.5	10	PDFN33
KU3600DN10RZ	●		100	±16	4.7	16.6	1	2.5	V _{GS}	250	300	360	10	2.3	4.5	10	PDFN33D
KU3600DN10CZ	●		100	±16	4.7	16.5	1	2.5	V _{GS}	250	300	360	10	2.3	4.5	10	PDFN56D PDFN56D(1)
KU310N10F	●		100	±20	23	38	2	4	V _{GS}	250	25	31	10	17	49	10	TO-220IS(1)
KU310N10D	●		100	±20	27	52	2	4	V _{GS}	250	25	31	10	13.5	49	10	DPAK(1) DPAK(3)
KUS220N10DA	●		100	±20	32	39	2	4	V _{GS}	250	17	22	10	16	18	10	DPAK(1) DPAK(3)
KUS086N10FA	●		100	±20	55	46	2	4	V _{GS}	250	6	8.6	10	27.5	54	10	TO-220IS(1)
KUS086N10DA	●		100	±20	63	62.5	2	4	V _{GS}	250	6	8.6	10	31.5	54	10	DPAK(1) DPAK(3)
KUS045N10FA	●		100	±20	80	50	2	4	V _{GS}	250	3.9	4.5	10	40	78	10	TO-220IS(1)

Note) Additional Function Code : Z → Built in ESD Zener diode

Note) ● : Preparing for qualification of AEC-Q

High Voltage MOSFET (Planar)

Type No.	AEC-Q	Max. Ratings				V _{th} (V)				R _{DS(on)} (mΩ)				Q _g (nC)		PKG
		V _{DSS} (V)	V _{GSS} (V)	I _D (A)	P _D (W)	Min.	Max.	@V _{DS} (V)	@I _D (μA)	Typ.	Max.	@V _{GS} (V)	@I _D (A)	Typ.	@V _{GS} (V)	
KF4N20LW	●	200	±20	1	2.2	1	2	V _{GS}	250	850	1050	10	0.5	2.9	5	SOT-223 SOT-223(1)
KF4N20LD	●	200	±20	3.6	31	1	2	V _{GS}	250	850	1150	10	1.8	2.9	5	DPAK(1) DPAK(3)
KF19N20D	○	200	±30	15	83.3	2	4	V _{GS}	250	130	155	10	7.5	21	10	DPAK(1) DPAK(3)
KF19N20F	●	200	±30	19	43.1	2	4	V _{GS}	250	130	155	10	9.5	21	10	TO-220IS(1)
KU210N20PS1 (Trench)	●	200	±20	66	223	2	4	V _{GS}	250	16	21	10	20	35	10	TO-220AB(1)
KF5N25D	●	250	±30	4.4	50	2	4	V _{GS}	250	900	1100	10	2.2	6	10	DPAK(1) DPAK(3)
KF9N25D	●	250	±30	7.5	54.3	2.5	4.5	V _{GS}	250	310	400	10	3.75	14.5	10	DPAK(1) DPAK(3)
KF9N25F	●	250	±30	9	38	2.5	4.5	V _{GS}	250	310	400	10	4.5	14.5	10	TO-220IS(1)
KF16N25D	●	250	±30	13	85	2	4	V _{GS}	250	200	240	10	6.5	21	10	DPAK(1) DPAK(3)
KF16N25F	●	250	±30	16	41.7	2	4	V _{GS}	250	200	240	10	8.0	21	10	TO-220IS(1)
KF3N40W	●	400	±30	2	2	2.5	4.5	V _{GS}	250	2800	3400	10	1	4.4	10	SOT-223 SOT-223(1)
KF5N40D	●	400	±30	4.2	50	2.5	4.5	V _{GS}	250	1300	1600	10	2.1	5.4	10	DPAK(1) DPAK(3)
KF5N40F	●	400	±30	4.4	37.9	2.5	4.5	V _{GS}	250	1300	1600	10	2.1	5.4	10	TO-220IS(1)
KF9N40D	●	400	±30	6.5	78	2.5	4.5	V _{GS}	250	700	830	10	3.25	13	10	DPAK(1) DPAK(3)
KF9N40F	●	400	±30	7	41.6	2.5	4.5	V _{GS}	250	700	830	10	3.25	13	10	TO-220IS(1)
KF3N50DZ	●	500	±30	2.5	40	2.5	4.5	V _{GS}	250	2000	2500	10	1.25	8	10	DPAK(1) DPAK(3)
KF3N50FZ	●	500	±30	3	25	2.5	4.5	V _{GS}	250	2000	2500	10	1.5	8	10	TO-220IS(1)
KF5N50DZ	●	500	±30	4.3	59.5	2.5	4.5	V _{GS}	250	1100	1400	10	2.15	12	10	DPAK(1) DPAK(3)
KF5N50FZA	●	500	±30	5	37.9	2.5	4.5	V _{GS}	250	1150	1400	10	2.5	12	10	TO-220IS(1)
KF7N50D	●	500	±30	5.5	69.4	2.5	4.5	V _{GS}	250	830	1000	10	2.7	16	10	DPAK(1) DPAK(3)
KF7N50F	●	500	±30	7	41.7	2.5	4.5	V _{GS}	250	830	1000	10	3.5	16	10	TO-220IS(1)
KF9N50F	●	500	±30	9	41	2.5	4.5	V _{GS}	250	640	750	10	4.5	19	10	TO-220IS(1)
KF11N50F	●	500	±30	11	46.3	2.5	4.5	V _{GS}	250	420	520	10	5.5	26	10	TO-220IS(1)
KF13N50F	●	500	±30	13	49.8	2.5	4.5	V _{GS}	250	350	440	10	6.5	35	10	TO-220IS(1)

Note) Additional Function Code : Z → Built in ESD Zener diode
 Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

■ High Voltage MOSFET (Planar)

Type No.	AEC-Q	Max. Ratings				V _{th} (V)				R _{Ds(on)} (mΩ)				Q _g (nC)		PKG
		V _{DSS} (V)	V _{GSS} (V)	I _b (A)	P _b (W)	Min.	Max.	@V _{Ds} (V)	@I _D (μA)	Typ.	Max.	@V _{Gs} (V)	@I _b (A)	Typ.	@V _{Gs} (V)	
KF500KN60SP2Z*	●	600	±20	0.021	0.5	1.4	2.6	V _{Gs}	8	195Ω	500Ω	10	0.016	1.3	10	SOT-23
KF1N60D	●	600	±30	1	28	2.5	4.5	V _{Gs}	250	8000	10000	10	0.5	4	10	DPAK(1) DPAK(3)
KF2N60D	●	600	±30	2	40.3	2.5	4.5	V _{Gs}	250	3700	4400	10	1	6	10	DPAK(1) DPAK(3)
KF2N60I	●	600	±30	2	40.3	2.5	4.5	V _{Gs}	250	3700	4400	10	1	6	10	IPAK(2)
KF2N60F	●	600	±30	2	28.4	2.5	4.5	V _{Gs}	250	3700	4400	10	1	6	10	TO-220IS(1)
KF3N60D	●	600	±30	2.3	44.6	2.5	4.5	V _{Gs}	250	2800	3300	10	1.15	8.5	10	DPAK(1) DPAK(3)
KF3N60I	●	600	±30	2.3	44.6	2.5	4.5	V _{Gs}	250	2800	3300	10	1.15	8.5	10	IPAK(2)
KF3N60F	●	600	±30	3	31	2.5	4.5	V _{Gs}	250	2800	3300	10	1.5	8.5	10	TO-220IS(1)
KF4N60D	●	600	±30	3.2	59.5	2.5	4.5	V _{Gs}	250	1900	2500	10	1.6	10	10	DPAK(1) DPAK(3)
KF4N60F	●	600	±30	4	37.9	2.5	4.5	V _{Gs}	250	1900	2500	10	2	10	10	TO-220IS(1)
KF5N60D	●	600	±30	3.5	59.5	2.5	4.5	V _{Gs}	250	1700	2000	10	1.75	11	10	DPAK(1) DPAK(3)
KF5N60F	●	600	±30	4.5	38	2.5	4.5	V _{Gs}	250	1700	2000	10	2.25	11	10	TO-220IS(1)
KF6N60D	●	600	±30	5	69.4	2.5	4.5	V _{Gs}	250	1200	1400	10	2.5	16	10	DPAK(1) DPAK(3)
KF6N60F	●	600	±30	6	41.7	2.5	4.5	V _{Gs}	250	1200	1400	10	3	16	10	TO-220IS(1)
KF7N60F	●	600	±30	7	41	2.5	4.5	V _{Gs}	250	950	1200	10	3.5	19	10	TO-220IS(1)
KF8N60F	●	600	±30	8	44.6	2.5	4.5	V _{Gs}	250	850	1050	10	4	22	10	TO-220IS(1)
KF10N60F	●	600	±30	10	46	2.5	4.5	V _{Gs}	250	590	730	10	5	26	10	TO-220IS(1)
KF12N60F	●	600	±30	12	49.8	2.5	4.5	V _{Gs}	250	510	600	10	6	36	10	TO-220IS(1)
KF4N65F	●	650	±30	3.6	37.9	2.5	4.5	V _{Gs}	250	2100	2500	10	1.8	12	10	TO-220IS(1)
KF5N65D	●	650	±30	4.4	69.4	2.5	4.5	V _{Gs}	250	1500	1750	10	2.2	14.5	10	DPAK(1) DPAK(3)
KF5N65F	●	650	±30	5	41.7	2.5	4.5	V _{Gs}	250	1500	1750	10	2.5	14.5	10	TO-220IS(1)
KF7N65F	●	650	±30	7	44.6	2.5	4.5	V _{Gs}	250	1000	1200	10	3.5	24	10	TO-220IS(1)
KF10N68F	●	680	±30	10	46	2.5	4.5	V _{Gs}	250	760	950	10	5	24	10	TO-220IS(1)
KF12N68F	●	680	±30	12	50	2.5	4.5	V _{Gs}	250	580	710	10	6	30	10	TO-220IS(1)
KF6N70F	●	700	±30	6	41	2.5	4.5	V _{Gs}	250	1420	1650	10	3	19	10	TO-220IS(1)
KF3N80D	●	800	±30	2.7	69.4	2.5	4.5	V _{Gs}	250	3400	4200	10	1.35	12	10	DPAK(1) DPAK(3)
KF3N80F	●	800	±30	3	32	2.5	4.5	V _{Gs}	250	3400	4200	10	1.5	12	10	TO-220IS(1)
KF4N80F	●	800	±30	4	43	2.5	4.5	V _{Gs}	250	2200	2600	10	2	17	10	TO-220IS(1)
KF7N80F	●	800	±30	7	44.6	2.5	4.5	V _{Gs}	250	1200	1450	10	3.5	45	10	TO-220IS(1)

Note) ● : Preparing for qualification of AEC-Q

High Voltage MOSFET (Super Junction)

Type No.	AEC-Q	Max. Ratings				V _{th} (V)				R _{DS(on)} (mΩ)				Q _g (nC)		PKG
		V _{DSS} (V)	V _{GSS} (V)	I _D (A)	P _D (W)	Min.	Max.	@V _{DS} (V)	@I _D (μA)	Typ.	Max.	@V _{Gs} (V)	@I _D (A)	Typ.	@V _{Gs} (V)	
KP580N60DM3	●	600	±30	8	56.8	2	4	V _{GS}	250	510	580	10	4	12	10	DPAK(3)
KP580N60FM3	●	600	±30	8	39.1	2	4	V _{GS}	250	510	580	10	4	12	10	TO-220IS(1)
KP580N60FWM3	●	600	±30	8	39.1	2	4	V _{GS}	250	510	580	10	4	12	10	TO-220ISW
KP380N60DM3	●	600	±30	11	78.1	2	4	V _{GS}	250	330	380	10	5.5	17	10	DPAK(3)
KP380N60FM3	●	600	±30	11	36.8	2	4	V _{GS}	250	330	380	10	5.5	17	10	TO-220IS(1)
KP380N60FWM3	●	600	±30	11	36.8	2	4	V _{GS}	250	330	380	10	5.5	17	10	TO-220ISW
KP280N60DM3	●	600	±30	15	83	2	4	V _{GS}	250	245	280	10	7.5	21	10	DPAK(1)
KP280N60FM3	●	600	±30	15	50	2	4	V _{GS}	250	245	280	10	7.5	21	10	TO-220IS(1)
KP280N60FWM3	●	600	±30	15	50	2	4	V _{GS}	250	245	280	10	7.5	21	10	TO-220ISW
KP190N60FM3	●	600	±30	20	59.5	2	4	V _{GS}	250	165	190	10	10	31	10	TO-220IS(1)
KP190N60FWM3	●	600	±30	20	59.5	2	4	V _{GS}	250	165	190	10	10	31	10	TO-220ISW
KP125N60FM3	●	600	±30	30	66	2	4	V _{GS}	250	109	125	10	15	47	10	TO-220IS(1)
KP099N60FM3	●	600	±30	38	65	3	5	V _{GS}	250	92	99	10	19	47	10	TO-220IS(1)
KP099N60KM3	●	600	±30	38	277	3	5	V _{GS}	250	92	99	10	19	47	10	TO-247
KP580N60DM3Z	●	600	±25	8	56	2	4	V _{GS}	250	510	580	10	4	12	10	DPAK(3)
KP580N60FM3Z	●	600	±25	8	39	2	4	V _{GS}	250	510	580	10	4	12	10	TO-220IS(1)
KP580N60FWM3Z	●	600	±25	8	39	2	4	V _{GS}	250	510	580	10	4	12	10	TO-220ISW
KP380N60DM3Z	●	600	±25	11	78	2	4	V _{GS}	250	330	380	10	5.5	17	10	DPAK(3)
KP380N60FM3Z	●	600	±25	11	36	2	4	V _{GS}	250	330	380	10	5.5	17	10	TO-220IS(1)
KP380N60FWM3Z	●	600	±25	11	36	2	4	V _{GS}	250	330	380	10	5.5	17	10	TO-220ISW
KP280N60DM3Z	●	600	±25	15	83	2	4	V _{GS}	250	245	280	10	7.5	21	10	DPAK(3)
KP280N60FM3Z	●	600	±25	15	50	2	4	V _{GS}	250	245	280	10	7.5	21	10	TO-220IS(1)
KP280N60FWM3Z	●	600	±25	15	50	2	4	V _{GS}	250	245	280	10	7.5	21	10	TO-220ISW
KP190N60FM3Z	●	600	±25	20	59	2	4	V _{GS}	250	165	190	10	10	31	10	TO-220IS(1)
KP190N60FWM3Z	●	600	±25	20	59	2	4	V _{GS}	250	165	190	10	10	31	10	TO-220ISW
KP190N60FM3ZA	●	600	±25	20	59	2	4	V _{GS}	250	165	190	10	10	31	10	TO-220IS(1)
KP190N60FWM3ZA	●	600	±25	20	59	2	4	V _{GS}	250	165	190	10	10	31	10	TO-220ISW
KP190N60KM3Z	●	600	±25	20	139	2	4	V _{GS}	250	165	190	10	10	31	10	TO-247
KP580N65DM3	●	650	±30	8	69	2	4	V _{GS}	250	510	580	10	4	12	10	DPAK(3)
KP580N65FM3	●	650	±30	8	43	2	4	V _{GS}	250	510	580	10	4	12	10	TO-220IS(1)
KP380N65FM3	●	650	±30	11	48	2	4	V _{GS}	250	330	380	10	5.5	19	10	TO-220IS(1)
KP280N65FM3	●	650	±30	15	52	2	4	V _{GS}	250	245	280	10	7.5	24	10	TO-220IS(1)
KP190N65FM3	●	650	±30	20	59	2	4	V _{GS}	250	165	190	10	10	35	10	TO-220IS(1)

Note) ● : Preparing for qualification of AEC-Q

Note) Additional Function Code : Z → Built in ESD Zener diode, A → Rg Split

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
10N60	UTC	KF10N60F	2N7002NXAK	NEXPERIA	2N7002KA	AOD66920	AOSMD	KUS086N10DA
10N60K	UTC	KF8N60F	2N7002NXBK	NEXPERIA	2N7002KB	AOD950A70	AOSMD	KP960N65DM1
13NM60G-TN3	UTC	KP380N60DM3	2N7002P	NEXPERIA	2N7002KB	AONS21357	AOSMD	KU080P03C
13NM60L-TF1	UTC	KP380N60FM3	2N7002PW	NEXPERIA	2N7002KU	AOSS32338C	AOSMD	KMD4D2N30S
14N65L-TF1-T	UTC	KF12N68F	2N7002Q	DIODES	2N7002KB	AOTF160A60L	AOSMD	KP190N60FM3Z
18NM60G-TN3	UTC	KP280N60DM3	2N7002WT1G	ONSEMI	2N7002KU	AOTF190A60CL	AOSMD	KP190N60FM3Z
18NM60L-TF1	UTC	KP280N60FM3	2SK1062	TOSHIBA	2N7002KB	AOTF66920L	AOSMD	KUS086N10FA
2N7002	VISHAY	2N7002KB	2SK1590C	RENESAS	2N7002KB	AP10N012H	APEC	KUS086N10DA
2N7002	DIODES	2N7002KB	2SK1657	RENESAS	KTK5132S	AP10N012I	APEC	KUS086N10FA
2N7002	MCC	2N7002KB	2SK1819-01MR	FUJI	KF5N50FZA	AP10N024H	APEC	KUS220N10DA
2N7002	NEXPERIA	2N7002KB	2SK2865	TOSHIBA	KF2N60D	AP10N7R5H	APEC	KUS086N10DA
2N7002	ONSEMI	2N7002KB	2SK3018	ROHM	KTK5132U	AP2301GN	APEC	KMA2D4P20SA
2N7002	PANJIT	2N7002KB	2SK3019	ROHM	KTK5132E	AP2323GN-HF	APEC	KU390P02SZ
2N7002	STMICRO	2N7002KB	2SK3019B	ROHM	KTK5132E	AP2764I-A-HF	APEC	KF10N68F
2N7002A	DIODES	2N7002KB	2SK3155	RENESAS	KF19N20F	AP30T10GH-HF	APEC	KU310N10D
2N7002AK-Q	NEXPERIA	2N7002KA-RTK/HU	2SK3160	RENESAS	KF19N20F	AP70AN1K4I	APEC	KF6N70F
2N7002AQ	DIODES	2N7002KB	2SK3541	ROHM	KTK5132V	AP9561GI-HF	APEC	KU170P04FT2
2N7002BK	NEXPERIA	2N7002KB	2SK3561	TOSHIBA	KF9N50F	ATP202-TL-H	ONSEMI	KU2303D
2N7002BKS	NEXPERIA	2N7002KDU	2SK3564	TOSHIBA	KF3N80F	ATP405-TL-H	ONSEMI	KU310N10D
2N7002BKW	NEXPERIA	2N7002KU	2SK3565	TOSHIBA	KF4N80F	AUIRFR3710Z	INFINEON	KUS220N10DA
2N7002CK	NEXPERIA	2N7002KB	2SK3576	RENESAS	KMA3D6N20SA	AUIRLR3110Z	INFINEON	KUS086N10DA
2N7002DW	DIODES	2N7002KDU	2SK3599-01MR	FUJI	KU310N10F	BL033N03-5DL8	GALAXY	KU024N03C
2N7002DW	INFINEON	2N7002KDU	2SK3607-01MR	FUJI	KF19N20F	BL10N70F	GALAXY	KF10N68F
2N7002DWQ	DIODES	2N7002KDU	2SK3683-01MR	FUJI	KF13N50F	BL2301	GALAXY	KMA3D7P20SA
2N7002E	DIODES	2N7002KB	2V7002LT/KT1G	ONSEMI	2N7002KB	BL3415ES	GALAXY	KMA3D7P20SA
2N7002E	ONSEMI	2N7002KB	2V7002WT1G	ONSEMI	2N7002KU	BR2N7002K2	BLUE ROCKET	2N7002KB
2N7002H	GALAXY	2N7002KB	7N10G-TN3-R	UTC	KU3600N10D	BRCS030N03ZC	BLUE ROCKET	KU024N03C
2N7002HWX	NEXPERIA	2N7002KU	8N40KL-TF1-T	UTC	KF9N40F	BRCS050N03DP	BLUE ROCKET	KU2307D
2N7002K	DIODES	2N7002KB	9NM60L-TF1	UTC	KP580N60FM3	BRCS3400MC	BLUE ROCKET	KMD4D2N30S
2N7002K	MCC	2N7002KB	AO3401	AOSMD	KMB3D0P30SA	BRCS3407MC	BLUE ROCKET	KMB3D0P30SA
2N7002K	PANJIT	2N7002KB	AO3403	AOSMD	KMB3D0P30SA	BSC0702LS	INFINEON	KU016N06CS1
2N7002K	VISHAY	2N7002KB	AO3415/A	AOSMD	KU390P02SZ	BSH205G2	NEXPERIA	KMA2D4P20SA
2N7002KA	MCC	2N7002KB	AO3423	AOSMD	KMA2D4P20SA	BSS127	INFINEON	KF500KN60SP2Z
2N7002KC	YANGJIE	2N7002KB	AO3424	AOSMD	KMD4D2N30S	BSS138	DIODES	2N7002KB
2N7002KCW	YANGJIE	2N7002KU	AO3435	AOSMD	KMA3D7P20SA	BSS138	ONSEMI	2N7002KB
2N7002KDW	PANJIT	2N7002KDU	AOD2910E	AOSMD	KUS220N10DA	BSS138	PANJIT	2N7002KB
2N7002KT	MCC	2N7002KE	AOD296A	AOSMD	KUS086N10DA	BSS138	TSC	2N7002KA-RTK/HU
2N7002KT1G	ONSEMI	2N7002KB	AOD2N60A	AOSMD	KF2N60D	BSS138AKA/BK	NEXPERIA	2N7002KB
2N7002KT7G	ONSEMI	2N7002KB	AOD380A60C	AOSMD	KP380N60DM3Z	BSS138BKS	NEXPERIA	2N7002KDU
2N7002KW	PANJIT	2N7002KU	AOD409G	AOSMD	KU350P06DT2	BSS138DW	DIODES	2N7002KDU
2N7002LT1G	ONSEMI	2N7002KB	AOD600A70	AOSMD	KP580N65DM3	BSS138N	INFINEON	2N7002KB

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
BSS138P	NEXPERIA	2N7002KB	FCH104N60F	ONSEMI	KP099N60KM3	IPA60R180P7S	INFINEON	KP190N60FM3Z
BSS138PS	NEXPERIA	2N7002KDU	FCPF190N60	ONSEMI	KP190N60FM3	IPA60R190E6	INFINEON	KP190N60FM3
BSS138PW	NEXPERIA	2N7002KU	FDD6N20TM	ONSEMI	KF5N25D	IPA60R280E6	INFINEON	KP280N60FM3
BSS138Q	DIODES	2N7002KA-RTK/HU	FDN336P	ONSEMI	KMA2D4P20SA	IPA60R280P7S	INFINEON	KP280N60FM3Z
BSS138W	DIODES	2N7002KU	FDN338P	ONSEMI	KMA2D4P20SA	IPA60R360P7S	INFINEON	KP380N60FM3Z
BSS138W	INFINEON	2N7002KU	FDN340P	ONSEMI	KMA3D7P20SA	IPA60R400CE	INFINEON	KP380N60FM3
BSS138W	ONSEMI	2N7002KU	FDN360P	ONSEMI	KMB3D0P30SA	IPA60R600P7S	INFINEON	KP580N60FM3Z
BSS138W	ROHM	2N7002KU	FDPF5N50NZ	ONSEMI	KF5N50FZA	IPA60R650CE	INFINEON	KP580N60FM3
BSS205N	INFINEON	KMA3D6N20SA	FDV301N	ONSEMI	KTk5132S	IPA70R360P7S	INFINEON	KP380N65FM3
BSS308PE	INFINEON	KMA3D7P20SA	FMV06N80E	FUJI	KF7N80F	IPD060N03LG	INFINEON	KU2303D
BVSS138LT1G	ONSEMI	2N7002KB	FMV07N70E	FUJI	KF6N70F	IPD082N10N3G	INFINEON	KUS086N10DA
CRJF125N60G2F	CR MICRO	KP125N60FM3	FMV08N80E	FUJI	KF7N80F	IPD35N10S3L-26	INFINEON	KUS220N10DA
CS7N80FA9R	CR MICRO	KF7N80F	FMV11N60E	FUJI	KF10N60F	IPD60R280P7S	INFINEON	KP280N60DM3Z
CS8N25FA9R	CR MICRO	KF9N25F	FMV20N60S1	FUJI	KP190N60FM3Z	IPD60R360P7S	INFINEON	KP380N60DM3Z
DMG1012T	DIODES	KML0D4N20E	FMV30N60S1	FUJI	KP125N60FM3	IPD60R385CP	INFINEON	KP380N60DM3Z
DMG2301L	DIODES	KMA3D7P20SA	FMV60N190S2HF	FUJI	KP190N60FM3	IPD60R3K3C6	INFINEON	KF3N60D
DMG2302U/UK	DIODES	KMA3D0N20SA	FMV60N280S2HF	FUJI	KP280N60FM3Z	IPD60R400CE	INFINEON	KP380N60DM3Z
DMG2305UXQ	DIODES	KU390P02SZ	FQD18N20V2	ONSEMI	KF19N20D	IPD60R460CE	INFINEON	KP380N60DM3Z
DMG301NU	DIODES	KTk5132S	FQD2N60CTM	ONSEMI	KF2N60D	IPD60R600E6	INFINEON	KP580N60DM3
DMN26D0UT	DIODES	KTk5132S	FQD5N15TM	ONSEMI	KF5N25D	IPD60R600P7S	INFINEON	KP580N60DM3Z
DMN4035LQ	DIODES	KMB3D5N40SA	FQD7N10L	ONSEMI	KU3600N10D	IPD60R650CE	INFINEON	KP580N60DM3
DMN53D0L/Q	DIODES	2N7002KB	FQPF13N50C	ONSEMI	KF13N50F	IPD70R900P7S	INFINEON	KP960N65DM1
DMN5L06KQ	DIODES	2N7002KB	H5N2504DS	RENESAS	KF9N25D	IPP320N20N3G	INFINEON	KU210N20PS1
DMN61D9UW	DIODES	2N7002KU	H5N5006FM	RENESAS	KF3N50FZ	IRFB4127PbF	INFINEON	KU210N20PS1
DMN62D0UWQ	DIODES	2N7002KU	H7N1004DS	RENESAS	KU310N10D	IRFI740G	VISHAY	KF9N40F
DMN65D8L	DIODES	2N7002KB	H7N1004FM	RENESAS	KU310N10F	IRFR18N15DPbF	INFINEON	KF19N20D
DMN65D8LW	DIODES	2N7002KU	H7P0601DS	RENESAS	KU350P06DT2	IRFR3710ZPbF	INFINEON	KUS220N10DA
DMN65D9L	DIODES	2N7002KB	HFS12N65S	SEMIHOW	KF12N68F	IRFR420TRPbF	VISHAY	KF3N50DZ
DMP2035U-7	DIODES	KU390P02SZ	HFS4N65	SEMIHOW	KF4N65F	IRFR812TRPbF	INFINEON	KF5N50DZ
DMP2045UQ	DIODES	KU390P02SZ	HFS7N80/A	SEMIHOW	KF7N80F	IRLML2502PbF	INFINEON	KMA3D6N20SA
DMP2110U	DIODES	KMA3D7P20SA	INJ0203BC1	ISAHAYA	KMA2D4P20SA	IRLML6402PbF	INFINEON	KU390P02SZ
DMP2160U	DIODES	KMA3D7P20SA	INK0010AC1	ISAHAYA	2N7002KB	IRLR8726PbF	INFINEON	KU2307D
DMP2225LQ	DIODES	KMA2D4P20SA	INK0010AM1	ISAHAYA	2N7002KU	JCS10N60FC	JSMC	KF10N60F
DMP3007SPSQ	DIODES	KU080P03C	INK0302AC1	ISAHAYA	KMB4D0N30SA	JCS10N65FT	JSMC	KF10N68F
DMP3068L	DIODES	KMB3D0P30SA	IPA045N10N3G	INFINEON	KUS045N10FA	JCS12N60FT	JSMC	KF12N60F
DMP3098L	DIODES	KMB3D0P30SA	IPA050N10NM5S	INFINEON	KUS045N10FA	JCS12N65FT	JSMC	KF12N68F
DMP3098LQ	DIODES	KMB3D0P30SA	IPA083N10N5	INFINEON	KUS086N10FA	JCS13N50FC	JSMC	KF13N50F
DMP3130LQ-7	DIODES	KMA3D7P20SA	IPA086N10N3 G	INFINEON	KUS086N10FA	JCS15N60FH	JSMC	KF12N60F
DMP3160L	DIODES	KMB3D0P30SA	IPA60R080P7	INFINEON	KP099N60FM3	JCS1N60RC	JSMC	KF1N60D
DMTH10H015SK3Q	DIODES	KUS086N10DA	IPA60R099P6	INFINEON	KP099N60FM3	JCS4N65RC	JSMC	KF5N65D
FCD5N60TM	ONSEMI	KP580N60DM3Z	IPA60R180C7	INFINEON	KP190N60FM3Z	JCS5N50FTR	JSMC	KF5N50DZ

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
JCS640FH	JSMC	KF19N20F	MMF60R580Q	MAGNACHIP	KP580N60FM3Z	PG7A10BD	NIKO SEMI	KUS086N10DA
JCS7N65FB	JSMC	KF7N65F	MMF60R580QTH	MAGNACHIP	KP580N60FM3Z	PJA138K	PANJIT	2N7002KB
JCS9N50FC	JSMC	KF9N50F	MMF65R380Q/TH	MAGNACHIP	KP380N65FM3	PJA3400	PANJIT	KMD4D2N30S
JMTG050P03A	JIEJIE	KU080P03C	MMF65R600Q	MAGNACHIP	KP580N65FM3	PJA3401	PANJIT	KMB3D0P30SA
JMTG080P03A	JIEJIE	KU080P03C	MMF70R600P	MAGNACHIP	KP580N65FM3	PJA3402-AU	PANJIT	KMD4D2N30S
JMTG3003A	JIEJIE	KU024N03C	MMFT60R195P	MAGNACHIP	KP190N60FM3Z	PJA3404-AU	PANJIT	KMD4D2N30S
JMTJ3407A	JIEJIE	KMB3D0P30SA	MMSF60R190Q	MAGNACHIP	KP190N60FWM3Z	PJA3405	PANJIT	KMB3D0P30SA
L2N7002DW1T1G	LRC	2N7002KDU	MMSF60R360Q	MAGNACHIP	KP380N60FWM3Z	PJA3405-AU	PANJIT	KMB3D0P30SA
L2N7002KWT1G	LRC	2N7002KU	NCE0125AK	NCEPOWER	KUS220N10DA	PJA3406	PANJIT	KMD4D2N30S
L2N7002S/KLT1G	LRC	2N7002KB	NCE20N60	NCEPOWER	KP190N60FM3Z	PJA3407	PANJIT	KMB3D0P30SA
L2N7002SDW1T1G	LRC	2N7002KDU	NCE65T180F	NCEPOWER	KP190N65FM3	PJA3412	PANJIT	KMA3D6N20SA
L2SK3019LT1G	LRC	KTK5132S	NCEP0218K	NCEPOWER	KF19N20D	PJA3413	PANJIT	KMA3D7P20SA
LBSS138LT1G	LRC	2N7002KB	NTJD5121NT1G	ONSEMI	2N7002KDU	PJA3414	PANJIT	KMA3D6N20SA
LN2308LT1G	LRC	KMB2D0N60SA	NTK3134NT1G	ONSEMI	KML0D4N20V	PJA3415AE	PANJIT	KU390P02SZ
LP2305LT1G	LRC	KMB3D0P30SA	NTR4101PT1G	ONSEMI	KMA3D7P20SA	PJA3440	PANJIT	KMB3D5N40SA
LP3407LT1G	LRC	KMB3D0P30SA	NTR4501NT1G	ONSEMI	KMA3D0N20SA	PJA3457	PANJIT	KU390P02SZ
MCU20N10A	MCC	KU310N10D	NTRV4101PT1G	ONSEMI	KMA3D7P20SA	PJD08N65N	POTENS	KP580N65DM3
MDD08N067RH	MAGNACHIP	KUS086N10DA	NVD6824NLT4G	ONSEMI	KUS220N10DA	PJD1NA60B	PANJIT	KF1N60D
MDD14N25C	MAGNACHIP	KF16N25D	NVR5198NLT1G	ONSEMI	KMB2D0N60SA	PJD1NA60B_L2_00001	PANJIT	KF1N60D
MDD3752	MAGNACHIP	KU170P04DT2	NX138BK	NEXPERIA	2N7002KB	PJE138K	PANJIT	2N7002KE
MDD4N25RH	MAGNACHIP	KF5N25D	NX2301P	NEXPERIA	KMA2D4P20SA	PK537BA	NIKO SEMI	KU080P03C
MDD5N40RH	MAGNACHIP	KF5N40D	NX3008NBKW	NEXPERIA	2N7002KU	PM505BA	NIKO SEMI	KU390P02SZ
MDD7N25/RH	MAGNACHIP	KF9N25D	NX3020NAK	NEXPERIA	KTK5132S	PM509BA	NIKO SEMI	KMB3D0P30SA
MDD9N40/RH	MAGNACHIP	KF9N40D	NX3020NAKW	NEXPERIA	KTK5132U	PM561BA	NIKO SEMI	KMB3D0P30SA
MDF11N65B	MAGNACHIP	KF12N68F	NX7002AK	NEXPERIA	2N7002KB	PM5Q4BA	NIKO SEMI	KMA3D6N20SA
MDF1921	MAGNACHIP	KUS045N10FA	NX7002AKS	NEXPERIA	2N7002KDU	PMBF170	NEXPERIA	2N7002KB
MDF3752	MAGNACHIP	KU170P04FT2	NXV75UP	NEXPERIA	KMA2D4P20SA	PMV120ENEA	NEXPERIA	KMB2D0N60SA
MDF5N50	MAGNACHIP	KF5N50FZA	P0770ETF	NIKO SEMI	KF6N70F	PMV27UPEA	NEXPERIA	KU390P02SZ
MDF9N50F	MAGNACHIP	KF7N50F	P1070ETF	NIKO SEMI	KF10N68F	PMV280ENEA	NEXPERIA	KU3600N10SZ
MDHT4N20Y	MAGNACHIP	KF4N20LW	P10F60HP2	SHINDENGEN	KF10N60F	PMV30UN2	NEXPERIA	KMA3D6N20SA
MMD50R380P	MAGNACHIP	KP380N60DM3Z	P1160JF	NIKO SEMI	KP380N60FM3Z	PMV30XPEA	NEXPERIA	KU390P02SZ
MMD60R360P	MAGNACHIP	KP380N60DM3	P3203CMG	NIKO SEMI	KMD4D2N30S	PMV33UPE	NEXPERIA	KU390P02SZ
MMD60R360Q	MAGNACHIP	KP380N60DM3Z	P3710BD	NIKO SEMI	KU310N10D	PMV50ENEA	NEXPERIA	KMD4D2N30S
MMD60R580Q	MAGNACHIP	KP580N60DM3Z	P5F50HP2	SHINDENGEN	KF5N50FZA	PMV50UPE	NEXPERIA	KU390P02SZ
MMF50R280P	MAGNACHIP	KP280N60FM3Z	P5F60HP2	SHINDENGEN	KF6N60F	PMV50XP	NEXPERIA	KU390P02SZ
MMF60R190Q	MAGNACHIP	KP190N60FM3Z	P6402FMG	NIKO SEMI	KMA3D7P20SA	PMV65XPEA	NEXPERIA	KMA3D7P20SA
MMF60R280Q/RZ	MAGNACHIP	KP280N60FM3Z	PDD0976B	POTENS	KUS086N10DA	PMV90ENER	NEXPERIA	KMB4D0N30SA
MMF60R290P	MAGNACHIP	KP280N60FM3	PDD0982B	POTENS	KUS086N10DA	PMZ600UNE	NEXPERIA	KML0D4N20UL
MMF60R360P	MAGNACHIP	KP380N60FM3	PDD4903	POTENS	KU170P04DT2	PP1410AD	NIKO SEMI	KUS086N10DA
MMF60R360Q	MAGNACHIP	KP380N60FM3Z	PDF0976B	POTENS	KUS086N10FA	PP4B10AF	NIKO SEMI	KUS045N10FA
MMF60R580P	MAGNACHIP	KP580N60FM3	PG1010BD	NIKO SEMI	KUS086N10DA	PZ2N7002M	NIKO SEMI	2N7002KB

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
PZC010HK	NIKO SEMI	KU3600DN10CZ	RRR030P03	ROHM	KMB3D0P30SA	SIHFR214TRL	VISHAY	KF5N25D
R6006KNX	ROHM	KP580N60FM3Z	RSD200N10	ROHM	KU310N10D	SIR470DP-T1-GE3	VISHAY	KU016N06CS1
R6009ENX	ROHM	KP580N60FM3Z	RSD201N10	ROHM	KU310N10D	SJMN600R70D	AUK	KP580N65DM3
R6011ENX	ROHM	KP380N60FM3Z	RSE002P03	ROHM	KML0D4P20E	S-L2N7002SDW1T1G	LRC	2N7002KDU
R6011KNX	ROHM	KP380N60FM3Z	RSR010N10	ROHM	KU3600N10SZA	S-L2N7002SLT1G	LRC	2N7002KB
R6018JNX	ROHM	KP280N60FM3Z	RSR020N06	ROHM	KMB2D0N60SA	SM1A08NSU	SINOPOWER	KUS220N10DA
R6020ENX	ROHM	KP190N60FM3Z	RSR020N06FRA/HZG	ROHM	KMB2D0N60SA	SM1A53NHFP	SINOPOWER	KUS086N10FA
R6020KNX	ROHM	KP190N60FM3Z	RSR020P03	ROHM	KMB3D0P30SA	SM1A65NHUC-TRG	SINOPOWER	KUS086N10DA
R6030KNX	ROHM	KP125N60FM3	RSR025N03	ROHM	KMB4D0N30SA	SM2313PSA	SINOPOWER	KMA3D7P20SA
R6511KNX	ROHM	KP380N65FM3	RSR025P03	ROHM	KMB3D0P30SA	SM4305PSKP	SINOPOWER	KU080P03C
RD3G03BAT	ROHM	KU170P04DT2	RTE002P02	ROHM	KML0D4P20E	SMK0765F	AUK	KF7N65F
RD3P200SN	ROHM	KU310N10D	RTR020P02	ROHM	KMA3D7P20SA	SMK0780FD	AUK	KF7N80F
RD3P200SNFRA	ROHM	KU310N10D	RTR025N03	ROHM	KMB4D0N30SA	SMK0825D	AUK	KF9N25D
RD3S075CN	ROHM	KF9N25D	RTR030P02HZG	ROHM	KMA3D7P20SA	SMK0870F	AUK	KF10N68F
RD3U040CN	ROHM	KF5N25D	RU1J002YN	ROHM	2N7002KU	SMK1265F	AUK	KF12N68F
RD3U060CNTL1	ROHM	KF9N25D	RU1L002SN	ROHM	2N7002KU	SMK1820D	AUK	KF19N20D
RE1C001UN	ROHM	KML0D4N20E	RUC002N05	ROHM	2N7002KB	SMK1820F	AUK	KF19N20F
RE1C002UN/ZP	ROHM	KML0D4N20E	RUM001L02	ROHM	KTK5132V	SMK830F	AUK	KF5N50FZA
RE1J002YN	ROHM	2N7002KE	RUM002N02	ROHM	KML0D4N20V	SMN01L20Q	AUK	KF4N20LW
RE1L002SN	ROHM	2N7002KE	RUU002N05	ROHM	2N7002KU	SN7002N	INFINEON	2N7002KB
RHK003N06FRA	ROHM	2N7002KB	RZM001P02	ROHM	KML0D3P20V	SQ2351ES	VISHAY	KMA2D4P20SA
RHU002N06FRA	ROHM	2N7002KU	RZM002P02	ROHM	KML0D3P20V	SRK7002LT1G	LRC	2N7002KB
RJK6002DPD	RENESAS	KF2N60D	RZR020P01	ROHM	KMA2D4P20SA	SSM3J15FV	TOSHIBA	KTJ6131V
RJK6006DPD	RENESAS	KF6N60D	Si1012X	VISHAY	KML0D4N20E	SSM3J331R	TOSHIBA	KU390P02SZ
RJU002N06	ROHM	2N7002KU	Si1013CX	VISHAY	KML0D4P20E	SSM3J332R	TOSHIBA	KU390P02SZ
RK7002/A/B/BM	ROHM	2N7002KB	Si1013X	VISHAY	KML0D4P20E	SSM3J334R	TOSHIBA	KMB3D0P30SA
RK7002BMHZG	ROHM	2N7002KB	Si1032X	VISHAY	KTK5132E	SSM3J36FS	TOSHIBA	KML0D4P20E
RQ5A020ZP	ROHM	KMA2D4P20SA	Si1034X	VISHAY	KTK7132E	SSM3J375F	TOSHIBA	KMA2D4P20SA
RQ5A025ZP	ROHM	KMA3D7P20SA	Si1062X	VISHAY	KML0D4N20E	SSM3J377R	TOSHIBA	KMA3D7P20SA
RQ5A030AP	ROHM	KU390P02SZ	Si2302A	MCC	KMA3D6N20SA	SSM3K15AFS	TOSHIBA	KTK5132E
RQ5C020TP	ROHM	KMA2D4P20SA	Si2304DDS	VISHAY	KMB4D0N30SA	SSM3K15AFU	TOSHIBA	KTK5132U
RQ5C035BC	ROHM	KU390P02SZ	Si2305B-TP	MCC	KU390P02SZ	SSM3K15AMFV	TOSHIBA	KTK5132V
RQ5E020SP	ROHM	KMB3D0P30SA	Si2306BDS	VISHAY	KMB4D0N30SA	SSM3K15F	TOSHIBA	KTK5132S
RQ5E025TN	ROHM	KMB4D0N30SA	Si2328DS	VISHAY	KU3600N10SZ	SSM3K15FS	TOSHIBA	KTK5132E
RQ5E030AJ	ROHM	KMB4D0N30SA	Si2333CDS	VISHAY	KU390P02SZ	SSM3K16FV	TOSHIBA	KTK5132V
RQ5E035AT	ROHM	KMB3D0P30SA	Si2356DS	VISHAY	KMB3D5N40SA	SSM3K2615R	TOSHIBA	KMB2D0N60SA
RQ5E035BN	ROHM	KMD4D2N30S	Si2374DS	VISHAY	KMA3D6N20SA	SSM3K318R	TOSHIBA	KMB2D0N60SA
RQ5L020SN	ROHM	KMB2D0N60SA	Si3400A	MCC	KMD4D2N30S	SSM3K324R	TOSHIBA	KMD4D2N30S
RQ5P010SN	ROHM	KU3600N10SZA	Si3401A	MCC	KMB3D0P30SA	SSM3K335R	TOSHIBA	KMB4D0N30SA
RQK0606KGDQA	RENESAS	KMB2D0N60SA	Si3407	MCC	KMB3D0P30SA	SSM3K357R	TOSHIBA	2N7002KB
RRR015P03	ROHM	KMB3D0P30SA	Si7149DP	VISHAY	KU080P03C	SSM3K36MFV	TOSHIBA	KML0D4N20V

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
SSM3K376R	TOSHIBA	KMD4D2N30S	SVS70R360FE3	SILAN	KP380N65FM3	TK7A90E	TOSHIBA	KF7N80F
SSM3K44FS	TOSHIBA	KTK5132E	SVS70R600FE3	SILAN	KP580N65FM3	TK7P50D	TOSHIBA	KF7N50D
SSM3K44MFV	TOSHIBA	KTK5132V	SVS7N65FJD2	SILAN	KP580N65FM3	TK7P60W	TOSHIBA	KP580N60DM3Z
SSM3K48FU	TOSHIBA	KTK5132U	T2N7002AK	TOSHIBA	2N7002KB	TK7R7P10PL	TOSHIBA	KUS086N10DA
SSM3K7002CFU/KFU	TOSHIBA	2N7002KU	T2N7002H	GALAXY	2N7002KA-RTK/HU	TK80A08K3	TOSHIBA	KUS045N10FA
STD10N60M2	STMICRO	KP580N60DM3Z	TBL2301	GALAXY	KMA2D4P20SA	TK8A50D	TOSHIBA	KF9N50F
STD13N60M2	STMICRO	KP380N60DM3Z	TJ15S06M3L	TOSHIBA	KU350P06DT2	TK8A60W	TOSHIBA	KP580N60FM3Z
STD16N60M2	STMICRO	KP280N60DM3Z	TK10A50D	TOSHIBA	KF9N50F	TK8P25DA	TOSHIBA	KF9N25D
STD20NF20	STMICRO	KF19N20D	TK10A60D	TOSHIBA	KF10N60F	TK8P60W	TOSHIBA	KP580N60DM3Z
STD25NF10LA	STMICRO	KU310N10D	TK10A60W	TOSHIBA	KP380N60FM3Z	TPH2R903PL	TOSHIBA	KU024N03C
STD3NK80ZT4	STMICRO	KF3N80D	TK110A10PL	TOSHIBA	KUS086N10FA	TSM250N02CX	TSC	KMA3D6N20SA
STF100N10F7	STMICRO	KUS086N10FA	TK11A65W	TOSHIBA	KP380N65FM3	TSM2NB60CP	TSC	KF2N60D
STF10N60M2	STMICRO	KP580N60FM3Z	TK12A50D	TOSHIBA	KF11N50F	TSM480P06CPROG	TSC	KU350P06DT2
STF10NM60N	STMICRO	KP580N60FM3	TK12P60W	TOSHIBA	KP380N60DM3	TSM650P03CX	TSC	KMB3D0P30SA
STF11N65M2	STMICRO	KP580N65FM3	TK13A50D	TOSHIBA	KF13N50F	UM6K31N	ROHM	2N7002KDU
STF13N60M2	STMICRO	KP380N60FM3Z	TK155A65Z	TOSHIBA	KP190N65FM3	UT2302G	UTC	KMA3D0N20SA
STF13NM60N	STMICRO	KP380N60FM3Z	TK15A50D	TOSHIBA	KF13N50F	UT2309	UTC	KMB3D0P30SA
STF18N60M2	STMICRO	KP280N60FM3Z	TK16A60W	TOSHIBA	KP190N60FM3	WM03N58M	WAYON	KMD4D2N30S
STF18NM60N	STMICRO	KP280N60FM3	TK190A65Z	TOSHIBA	KP190N65FM3	WM06N03GE	WAYON	2N7002KU
STF22NM60N	STMICRO	KP190N60FM3	TK20A60U	TOSHIBA	KP190N60FM3	WML20N60C2	WAYON	KP280N60FM3
STF24N60M2	STMICRO	KP190N60FM3Z	TK20A60W	TOSHIBA	KP190N60FM3Z	WMO15N25T2	WAYON	KF16N25D
STF5NK52ZD	STMICRO	KF5N50FZA	TK25A10K3	TOSHIBA	KU310N10F	YJD45G10A	YANGJIE	KUS086N10DA
STF80N10F7	STMICRO	KUS086N10FA	TK290A60Y	TOSHIBA	KP280N60FM3Z	YJG70P03A	YANGJIE	KU080P03C
STN2NF10	STMICRO	KU3600N10WZ	TK290A65Y	TOSHIBA	KP280N65FM3	YJL2301C	YANGJIE	KU390P02SZ
STN4NF20L	STMICRO	KF4N20LW	TK2P90E	TOSHIBA	KF3N80D	YJL2301F	YANGJIE	KMA2D4P20SA
STP10NK70ZFP	STMICRO	KF10N68F	TK31N60W	TOSHIBA	KP099N60KM3	YJL2305BQ	YANGJIE	KU390P02SZ
STP4NK80ZFP	STMICRO	KF4N80F	TK34A10N1	TOSHIBA	KUS086N10FA	YJL3134KAE	YANGJIE	KML0D4N20E
STP5NK80ZFP	STMICRO	KF4N80F	TK3P80E	TOSHIBA	KF3N80D	YJL3407A	YANGJIE	KMB3D0P30SA
STP6NK90ZFP	STMICRO	KF7N80F	TK40A10N1	TOSHIBA	KUS086N10FA	YJL3415KC	YANGJIE	KU390P02SZ
STP80NF10FP	STMICRO	KUS086N10FA	TK46A08N1	TOSHIBA	KUS086N10FA	ZXMN6A07FQTA	DIODES	KMB2D0N60SA
STP9NK50ZFP	STMICRO	KF9N50F	TK4P50D	TOSHIBA	KF5N50DZ			
STU2N62K3	STMICRO	KF3N60I	TK50P03M1	TOSHIBA	KU2303D			
SUD23N06-31	VISHAY	KU310N10D	TK5A50D	TOSHIBA	KF5N50FZA			
SVF12N65F	SILAN	KF12N68F	TK5A80E	TOSHIBA	KF4N80F			
SVF2N60CM	SILAN	KF2N60I	TK5A90E	TOSHIBA	KF4N80F			
SVF4N65RMJ	SILAN	KF5N65F	TK5P50D	TOSHIBA	KF5N50DZ			
SVF5N80F	SILAN	KF4N80F	TK65A10N1	TOSHIBA	KUS045N10FA			
SVF830D	SILAN	KF5N50DZ	TK6A80E	TOSHIBA	KF7N80F			
SVF840D	SILAN	KF7N50D	TK72A08N1	TOSHIBA	KUS045N10FA			
SVF840F	SILAN	KF9N50F	TK750A60F	TOSHIBA	KF10N60F			
SVF8N65F	SILAN	KF7N65F	TK7A60W	TOSHIBA	KP580N60FM3			

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IGBT

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IGBT (Gen4 and Earlier)

Type No.	AEC-Q	Built in Diode	Max.Ratings									V _{GEth} [M]			V _{CEsat} [M]		V _{HE} [M]		PKG
			V _{GS} [M]	V _{GS} [M]	T _J [°C]	I _C [A] @25°C	I _C [A] @100°C	I _H [A] @25°C	I _H [A] @100°C	I _{CM} [A] @25°C	P _B [W] @25°C	Min.	Max.	@I _C [mA] T _J =25°C	Typ	@I _C [A] T _J =25°C	Typ	@I _H [A] T _J =25°C	
KGT15N60FDA	-	Y	600	±20	150	15	7.5	30	-	60	41.6	4.5	7.0	2.0	1.70	15	1.60	15	TO-220IS(1)
KGF15N60FDA	-	Y	600	±20	150	15	7.5	15	-	30	50	4.5	7	2	1.65	15	1.65	15	TO-220IS(1)
KGF20N60KDA	-	Y	600	±20	150	40	20	-	40	60	156	4.5	7.0	2.0	1.70	20	1.65	20	TO-247 /TO-247(E)
KGF30N60KDA	-	Y	600	±20	150	60	30	30	-	90	178	4.5	7.0	3.0	1.65	30	1.70	30	TO-247 /TO-247(E)
KGF40N60KDA	-	Y	600	±20	150	80	40	-	40	120	250	4.5	7.0	4.0	1.65	40	1.70	40	TO-247
KGF50N60KDA	-	Y	600	±20	150	100	50	-	50	150	277	4.5	7.0	5.0	1.65	50	1.80	50	TO-247 /TO-247(E)
KGF75N60KDB	-	Y	600	±20	150	100	75	-	75	225	357	5.0	7.5	7.5	1.55	75	1.50	75	TO-247 /TO-247(E)
KGF05N65DDA	-	Y	650	±20	150	10	5	5	-	15	57.1	3.1	7.1	5.0	1.66	5	1.95	5	DPAK(3)
KGF05N65DDEL (Zener built-in type)	-	Y	650	±20	150	10	5	10	5	20	57.1	4	6.5	5.0	1.65	5	1.95	5	DPAK(3)
KGF05N65DDE (Zener built-in type)	-	Y	650	±20	150	10	5	10	5	20	57.1	4.0	6.5	5.0	1.65	5	1.95	5	DPAK(3)
KGF06N65DDE (Zener built-in type)	-	Y	650	±20	175	12	6	12	6	24	96.8	4	6.5	6.0	1.5	6	1.45	6	DPAK(3)
KGF15N65FDA	-	Y	650	±20	150	15	10	15	-	45	32	-	6.24	1.5	1.75	15	1.87	15	TO-220IS(1)
KGF15N65DDA	-	Y	650	±20	150	30	15	15	-	45	99	3.9	5.9	2.0	1.75	15	1.87	15	DPAK(3)
KGF15N65PDA	-	Y	650	±20	150	30	15	15	-	45	99	3.9	5.9	2.0	1.75	15	1.87	15	TO-220AB (3)
KGF30N65FDA	-	Y	650	±20	150	60	30	60	30	90	50	5.0	7.0	1.0	1.50	30	1.75	30	TO-220IS(1)
KGF40N65KDC	-	Y	650	±20	175	80	40	-	40	120	208	5.0	7.5	4.0	1.75	40	1.91	20	TO-247 /TO-247(E)
KGF40N65KDCA	-	Y	650	±20	175	80	40	80	40	120	187	5.0	7.5	4.0	1.65	40	1.98	40	TO-247 /TO-247(E)
KGF50N65KDF	-	Y	650	±20	175	100	50	-	50	150	300	4.2	6.4	0.5	1.75	50	1.90	50	TO-247 /TO-247(E)
KGF60N65KDF	-	Y	650	±20	175	120	60	-	60	120	340	4.3	6.5	1.0	1.77	60	2.16	60	TO-247 /TO-247(E)
KGF60N65KDFA	-	Y	650	±20	175	120	60	120	60	240	384.6	4.5	6.5	6.0	1.74	60	1.55	60	TO-247
KGF75N65KDF	-	Y	650	±20	175	100	75	-	75	225	484	4.2	6.4	1.0	1.77	75	2.00	75	TO-247 /TO-247(E)
KGF75N65KDFA	-	Y	650	±20	175	150	75	150	75	225	517	4.5	6.5	7.5	1.75	75	1.70	75	TO-247
KGF15N120KDA	-	Y	1200	±20	150	30	15	30	15	45	357	4.5	7.0	15	2	15	2.4	15	TO-247 /TO-247(E)
KG15N120KD4H	-	Y	1200	±20	175	30	15	30	15	60	-	4.8	6.8	15	1.95	15	2.4	15	TO-247
KGF25N120KDA	-	Y	1200	±20	150	50	25	50	25	75	227	4.5	7.0	25	2	25	2.4	25	TO-247 /TO-247(E)
KG25N120KD4H	-	Y	1200	±20	175	50	25	50	25	100	-	4.8	6.8	25	1.95	25	2.4	25	TO-247
KGF30N120KAA	○	N	1200	±20	175	60	30	-	-	90	469	4.9	6.5	1.0	1.94	30	-	-	TO-247 /TO-247(E)
KGF40N120KDA	-	Y	1200	±20	150	80	40	80	40	120	167	4.5	7.0	40	2	40	2.6	40	TO-247 /TO-247(E)
KG40N120KD4H	-	Y	1200	±20	175	80	40	80	40	160	577	4.8	6.8	40	1.95	40	2.4	40	TO-247

Note) ○ : AEC-Q Qualified

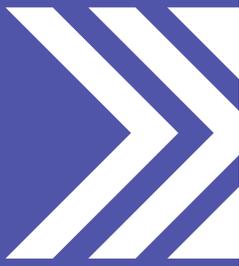
IGBT (Gen5 Line-up)

Type No.	AEC-Q	Built in Diode	Max Ratings									V _{GEth} [M]			V _{CEsat} [M]		V _F [M]		PKG
			V _{CS} [M]	V _{GS} [M]	T _J [°C]	I _C [A] @25°C	I _C [A] @100°C	I _H [A] @25°C	I _H [A] @100°C	I _{CM} [A] @25°C	P _D [W] @25°C	Min.	Max.	@I _C [mA] T _J =25°C	Typ	@I _C [A] T _J =25°C	Typ	@I _H [A] T _J =25°C	
KG10N65DDN5	○	Y	650	±20	175	20	10	20	10	40	103	4.3	6.7	1	1.55	10	1.45	10	DKPAK(3)
KG10N65FDN5	○	Y	650	±20	175	20	10	20	10	40	91	4.3	6.7	1	1.55	10	1.45	10	TO-220IS(1)
KG15N65FDN5	○	Y	650	±20	175	15	30	15	30	60	100	4.3	6.7	1	1.55	15	1.45	15	TO-220IS(1)
KG20N65FDN5	○	Y	650	±20	175	20	40	20	40	80	115	4.3	6.7	2	1.55	20	1.45	20	TO-220IS(1)
KG20N65MSN5	○	N	650	±20	175	20	40	20	40	80	107	4.3	6.7	2	1.55	20	-	-	TO-3PF
KG40N65FDN5	○	Y	650	±20	175	80	40	80	40	160	130	4.5	6.7	4	1.65	40	1.6	40	TO-220IS(1)
KG40N65KDN5	○	Y	650	±20	175	80	40	80	40	160	429	4.5	6.7	4	1.65	40	1.6	40	TO-247
KG60N65KDN5	○	Y	650	±20	175	120	60	120	60	240	556	4.3	6.7	6	1.65	60	1.6	60	TO-247
KG80N65KDN5	○	Y	650	±20	175	160	80	160	80	320	682	4.3	6.7	8	1.65	80	1.6	80	TO-247
KG10B65KDN5	○	Y	650	±20	175	200	100	200	100	400	882	4.3	6.7	10	1.65	100	1.6	100	TO-247
KG15N120KDN5	○	Y	1200	±20	175	30	15	30	15	60	366	4.8	6.8	15	1.75	15	2.05	15	TO-247
KG25N120KDN5	○	Y	1200	±20	175	50	25	50	25	100	455	4.8	6.8	25	1.75	25	2.05	25	TO-247
KG40N120KDN5	○	Y	1200	±20	175	80	40	80	40	160	536	4.8	6.8	40	1.75	40	2.05	40	TO-247

Note) ○ : AEC-Q Qualified

Type No.	Maker	KEC	Type No.	Maker	KEC
AIGW50N65F5	INFINEON	KGF50N65KDF	IKD04N60RC2	INFINEON	KGF05N65DDA
AIKW30N60CT	INFINEON	KGF40N60KDA	IKD06N60R	INFINEON	KGF05N65DDA
AMBQ40T120RFR	MAGNACHIP	KGF40N120KDA	IKD06N60RF	INFINEON	KGF05N65DDA
AOD5B60D	AOSMD	KG10N65DDN5	IKFW90N60EH3	INFINEON	KGF40N60KDA
AOD5B65MQ1E	AOSMD	KGF05N65DDE	IKW15N120H3	INFINEON	KGF15N120KDA
ATT040K065EQ	JSMC	KGF40N65KDCA	IKW15N120T2	INFINEON	KGF15N120KDA
AUIRGP4062D-E	INFINEON	KGF30N60KDA	IKW15T120	INFINEON	KGF15N120KDA
FGA3060ADF	ONSEMI	KGF30N60KDA	IKW20N60H3	INFINEON	KGF20N60KDA
FGA4060ADF	ONSEMI	KGF40N60KDA	IKW20N60T	INFINEON	KGF20N60KDA
FGA40N65SMD	ONSEMI	KGF40N65KDC	IKW20N65ET7	INFINEON	KGF40N65KDC
FGA6540WDF	ONSEMI	KGF40N65KDC	IKW25N120H3	INFINEON	KGF25N120KDA
FGB40N60SM	ONSEMI	KGF40N60KDA	IKW25N120T2	INFINEON	KGF25N120KDA
FGB40T65SPD-F085	ONSEMI	KGF40N65KDC	IKW25T120	INFINEON	KGF25N120KDA
FGH20N60UFD	ONSEMI	KGF20N60KDA	IKW30N60DTP	INFINEON	KGF40N60KDA
FGH25T120SMD	ONSEMI	KGF25N120KDA	IKW30N60H3	INFINEON	KGF30N60KDA
FGH40N60SMDF	ONSEMI	KGF40N60KDA	IKW30N60T	INFINEON	KGF30N60KDA
FGH40N65UFD-F085	ONSEMI	KGF40N65KDC	IKW40N120H3	INFINEON	KGF40N120KDA
FGH40T100SMD	ONSEMI	KGF40N120KDA	IKW40N120T2	INFINEON	KGF40N120KDA
FGH40T120SMD	ONSEMI	KGF40N120KDA	IKW40N60DTP	INFINEON	KGF40N60KDA
FGH40T65UQDF	ONSEMI	KGF40N65KDC	IKW40N60H3	INFINEON	KGF40N60KDA
FGH60N60SMD	ONSEMI	KGF60N65KDF	IKW40N65F5	INFINEON	KGF40N65KDC
FGH75T65SHD	ONSEMI	KGF75N65KDF	IKW40T120	INFINEON	KGF40N120KDA
FGH75T65SHDT	ONSEMI	KGF75N60KDB	IKW50N60H3	INFINEON	KGF50N65KDF
FGPF10N60UNDF	ONSEMI	KGF15N65FDA	IKW50N60T	INFINEON	KGF50N60KDA
FGPF15N60UNDF	ONSEMI	KGF15N65FDA	IKW50N60TA	INFINEON	KGF50N60KDA
FGW30N120H	FUJI	KGF25N120KDA	IKW50N65EH5	INFINEON	KGF50N65KDF
FGW40N120HD	FUJI	KGF40N120KDA	IKW50N65WR5	INFINEON	KGF50N65KDF
FGW60N65WD	FUJI	KGF60N65KDF	IKW75N60T	INFINEON	KGF75N60KDB
FGY75N60SMD	ONSEMI	KGF75N60KDB	IKW75N65EH5	INFINEON	KGF75N65KDF
GT15J301	TOSHIBA	KGT15N60FDA	IRG4BC40F	INFINEON	KGF30N60PA
GT15J341	TOSHIBA	KGT15N60FDA	IRG4IBC20FD	INFINEON	KGF15N60FDA
GT30J341	TOSHIBA	KGF30N60KDA	IRG4IBC20KD	INFINEON	KGF12N60FDA
GT40J322	TOSHIBA	KGF40N60KDA	IRG4PC40FD	INFINEON	KGF30N60KDA
GT50J341	TOSHIBA	KGF50N60KDA	IRG4PC40UD	INFINEON	KGF20N60KDA
ID06G65	CHIPOWNI	KGF06N65DDE	IRG4PC40UDPBF	INFINEON	KGF20N60KDA
IGW30N60H3	INFINEON	KGF30N60KDA	IRG4PC50FD	INFINEON	KGF40N60KDA
IKA06N60T	INFINEON	KGF12N60FDA	IRG4PC50KD	INFINEON	KGF30N60KDA
IKA08N65ET6	INFINEON	KGF15N60FDA	IRG4PC50SD	INFINEON	KGF40N60KDA
IKA08N65H5	INFINEON	KGF15N65FDA	IRG4PC50UD	INFINEON	KGF30N60KDA
IKA10N60T	INFINEON	KGF12N60FDA	IRG4PC50UDPbF	INFINEON	KGF30N60KDA
IKA15N60T	INFINEON	KGF15N65FDA	IRG4PC50UPbF	INFINEON	KGF30N60KDA
IKA15N65ET6	INFINEON	KGF15N65FDA	IRG4PC60UPbF	INFINEON	KGF40N60KDA
IKA15N65F5	INFINEON	KGF15N60FDA	IRG4PF50WDPbF	INFINEON	KGF30N60KDA
IKA15N65H5	INFINEON	KGF15N60FDA	IRG4PH40KD	INFINEON	KGF15N120KDA

Type No.	Maker	KEC	Type No.	Maker	KEC
IRG4PH40UDPbF	INFINEON	KGF25N120KDA	RGS00TS65DHR	ROHM	KGF50N65KDF
IRG4PH50KD	INFINEON	KGF25N120KDA	RGS00TS65EHR	INFINEON	KGF50N65KDF
IRG4PH50UD	INFINEON	KGF25N120KDA	RGS80TSX2DHR	ROHM	KGF40N120KDA
IRG7PH35UD	INFINEON	KGF25N120KDA	RGS80TSX2DHRC11	ROHM	KGF40N120KDA
IRGIB6B60KD	INFINEON	KGF12N60FDA	RGS80TSX2HRC11	ROHM	KGF30N120KA
IRGIB7B60KD	INFINEON	KGF15N60FDA	RGT30TM65D	ROHM	KGF15N65FDA
IRGP20B120UD-E	INFINEON	KGF25N120KDA	RGT50TM65D	ROHM	KGF15N65FDA
IRGP20B60PD	INFINEON	KGF30N60KDA	RGTH00TS65DGC13	ROHM	KGF50N65KDF
IRGP30B60KD-E	INFINEON	KGF30N60KDA	RGTV60TS65D	ROHM	KGF40N65KDC
IRGP35B60PD	INFINEON	KGF30N60KDA	RGW80TS65D	ROHM	KGF40N65KDC
IRGP40G2DPbF	INFINEON	KGF30N60KDA	RJH1CF4RDPQ-80	RENESAS	KG25N120KD4
IRGP40G3DPbF	INFINEON	KGF50N60KDA	RJH1CM5DPK	RENESAS	KGF15N120KDA
IRGP40G8D	INFINEON	KGF50N60KDA	RJH1CM5DPQ	RENESAS	KGF15N120KDA
IRGP40G9D	INFINEON	KGF50N60KDA	RJH1CM6DPK	RENESAS	KGF25N120KDA
IRGP4640D	INFINEON	KGF40N60KDA	RJH1CM6DPQ	RENESAS	KGF25N120KDA
IRGP4660D	INFINEON	KGF50N60KDA	RJH1CM7DPK	RENESAS	KGF25N120KDA
IRGP50B60PD	INFINEON	KGF40N60KDA	RJH1CM7DPQ	RENESAS	KGF25N120KDA
IRGP50B60PD1-E	INFINEON	KGF50N60KDA	RJH60D2DPP-M0	RENESAS	KG15N60FDA
IXXH30N60C3D1	LITTELFUSE	KGF30N60KDA	RJH60F7DPK	RENESAS	KGF50N60KDA
JJE6N65STP	JJW	KGF06N65DDE	SGTP5T60SD1F	SILAN	KG10N65FDN5
JT010N065FED	JSMC	KG10N65FDN5	SKW25N120	INFINEON	KGF25N120KDA
JT040K065WED	JSMC	KGF40N65KDCA	SKW30N60	INFINEON	KGF30N60KDA
JT05N065FED	JSMC	KG10N65FDN5	STGD3HF60HDT4	STMICRO	KGF05N65DDA
JT05N065RAD	JILINSINO	KGF05N65DDA	STGD5H60DF	STMICRO	KGF05N65DDA
JT05N065RAD	JSMC	KGF05N65DDA	STGF10M65DF2	STMICRO	KG10N65FDN5
JT05N065RED	HUAWEI	KGF06N65DDE	STGF15M65DF2	STMICRO	KGF15N65FDA
JT075N065WED	JILINSINO	KGF75N65KDFA	STGF20H60DF	STMICRO	KGF20N60KDA
MBQ40T120FES	MAGNACHIP	KGF40N120KDA	STGF20H65DFB2	STMICRO	KGF40N65KDC
MGD623N	SANKEN	KGF50N60KDA	STGF30H60DF	STMICRO	KGF30N60KDA
MGD623S	SANKEN	KGF40N60KDA	STGF7H60DF	STMICRO	KG15N60FDA
NCE40TD65BT	NCE	KG40N65KDN5	STGW20H60DF	STMICRO	KGF20N60KDA
NCE60TD60BP	NCE	KG60N65KDN5	STGW30H60DFB	STMICRO	KGF30N60KDA
NCE80TD60BT	NCE	KG80N65KDN5	STGW30NC60VD	STMICRO	KGF30N60KDA
NGTB03N60R2DT4G	ONSEMI	KGF05N65DDA	STGWA19NC60HD	STMICRO	KGF20N60KDA
NGTB15N120FL2WG	ONSEMI	KGF15N120KDA	STGWA30HP65FB2	STMICRO	KGF40N65KDC
NGTB15N60EG	ONSEMI	KGF15N65PDA	STGWA40HP65FB2	STMICRO	KGF40N65KDC
NGTB25N120FL2WG	ONSEMI	KGF25N120KDA	STGWA50IH65DF	STMICRO	KGF50N65KDF
NGTB25N120SWG	ONSEMI	KGF25N120KDA	STGWA60H65DFB	STMICRO	KGF60N65KDF
NGTB35N65FL2WG	ONSEMI	KGF40N65KDCA	STGWT60H65DFB	STMICRO	KGF60N65KDF
NGTB40N120FL2WG	ONSEMI	KGF40N120KDA	TGAN60N65F2D2S	TRINNO	KGF75N65KDF
NGTB50N120FL2WG	ONSEMI	KGF40N120KDA	TGAN60N65F2DS	TRINNO	KGF75N65KDF
RGCL60TK60	ROHM	KGF30N60KDA	WG50N65DHW	WEEN	KGF50N65KDF
RGCL80TS60D	ROHM	KGF40N60KDA	XNM6N60T	XINER	KGF05N65DDA



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Amplifiers & Comparators

■ OP Amp.

Type No.	AEC-Q	Channel No.	Supply Voltage V _{cc} (V)	Input Offset Voltage V _{io} (mV)	Input Bias Current I _i (nA)	Slew Rate (V/us)	PKG
KIA75S358F	○	1	±18 or 36	2	45	0.4	TSV
KIA75S558F	○	1	±18 or 36	0.5	60	1.0	
KIA358P	○	2	±18 or 36	2	45	0.4	DIP-8
KIA4558P	○	2	±18 or 36	0.5	60	1.0	
KIA358F	○	2	±18 or 36	2	45	0.4	FLP-8
KIA2904F	●	2	±18 or 36	2	45	0.8	
KIA4558F	○	2	±18 or 36	0.5	60	1.0	
KIA324P	○	4	±18 or 36	2	45	0.4	DIP-14
KIA324F	○	4	±18 or 36	2	45	0.4	FLP-14

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

■ Comparator

Type No.	AEC-Q	Channel No.	Supply Voltage V _{cc} (V)	Input Offset Voltage V _{io} (mV)	Input Bias Current I _i (nA)	PKG
KIA75S393F	○	1	±18 or 36	2	25	TSV
KIA393P	○	2	±18 or 36	2	25	DIP-8
KIA393F	○	2	±18 or 36	2	25	FLP-8
KIA339P	○	4	±18 or 36	2	25	DIP-14
KIA339F	○	4	±18 or 36	2	25	FLP-14

Note) ○ : AEC-Q Qualified

■ Detector & Reset IC

▣ Bipolar Voltage Detector IC (Active Low, Open Collector Output Type)

Type No.	AEC-Q	Max. Ratings		Detecting Volts. $V_S(V)$			Low-Level Output Volts. $V_{OL}(V)$	Hysteresis Volts. $\Delta V_S(mV)$			Circuit Current at on. $I_{CC1}(\mu A)$		Circuit Current at off. $I_{CC1}(\mu A)$		PKG
		$V_{IN}(V)$	$P_D(mW)$	Min.	Typ.	Max.	Max.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.	
KIA7019AP	●	15	400	1.75	1.9	2.05	0.4	30	50	100	300	500	30	50	TO-92
KIA7021AP	●	15	400	1.95	2.1	2.25	0.4	30	50	100	300	500	30	50	
KIA7023AP	●	15	400	2.15	2.3	2.45	0.4	30	50	100	300	500	30	50	
KIA7025AP	●	15	400	2.35	2.5	2.65	0.4	30	50	100	300	500	30	50	
KIA7027AP	●	15	400	2.55	2.7	2.85	0.4	30	50	100	300	500	30	50	
KIA7029AP	●	15	400	2.75	2.9	3.05	0.4	30	50	100	300	500	30	50	
KIA7031AP	●	15	400	2.95	3.1	3.25	0.4	30	50	100	300	500	30	50	
KIA7032AP	●	15	400	3.05	3.2	3.35	0.4	30	50	100	300	500	30	50	
KIA7033AP	●	15	400	3.15	3.3	3.45	0.4	30	50	100	300	500	30	50	
KIA7034AP	●	15	400	3.25	3.4	3.55	0.4	30	50	100	300	500	30	50	
KIA7035AP	●	15	400	3.35	3.5	3.65	0.4	30	50	100	300	500	30	50	
KIA7036AP	●	15	400	3.45	3.6	3.75	0.4	30	50	100	300	500	30	50	
KIA7039AP	●	15	400	3.75	3.9	4.05	0.4	30	50	100	300	500	30	50	
KIA7042AP	●	15	400	4.05	4.2	4.35	0.4	30	50	100	300	500	30	50	
KIA7045AP	●	15	400	4.35	4.5	4.65	0.4	30	50	100	300	500	30	50	
KIA7019AF	○	15	500	1.75	1.9	2.05	0.4	30	50	100	300	500	30	50	SOT-89
KIA7021AF	○	15	500	1.95	2.1	2.25	0.4	30	50	100	300	500	30	50	
KIA7023AF	○	15	500	2.15	2.3	2.45	0.4	30	50	100	300	500	30	50	
KIA7025AF	○	15	500	2.35	2.5	2.65	0.4	30	50	100	300	500	30	50	
KIA7027AF	○	15	500	2.55	2.7	2.85	0.4	30	50	100	300	500	30	50	
KIA7029AF	○	15	500	2.75	2.9	3.05	0.4	30	50	100	300	500	30	50	
KIA7031AF	○	15	500	2.95	3.1	3.25	0.4	30	50	100	300	500	30	50	
KIA7032AF	○	15	500	3.05	3.2	3.35	0.4	30	50	100	300	500	30	50	
KIA7033AF	○	15	500	3.15	3.3	3.45	0.4	30	50	100	300	500	30	50	
KIA7034AF	○	15	500	3.25	3.4	3.55	0.4	30	50	100	300	500	30	50	
KIA7035AF	○	15	500	3.35	3.5	3.65	0.4	30	50	100	300	500	30	50	
KIA7036AF	○	15	500	3.45	3.6	3.75	0.4	30	50	100	300	500	30	50	
KIA7039AF	○	15	500	3.75	3.9	4.05	0.4	30	50	100	300	500	30	50	
KIA7042AF	○	15	500	4.05	4.2	4.35	0.4	30	50	100	300	500	30	50	
KIA7045AF	○	15	500	4.35	4.5	4.65	0.4	30	50	100	300	500	30	50	
KIA7019AT	○	15	350	1.75	1.9	2.05	0.4	30	50	100	300	500	30	50	TSM
KIA7021AT	○	15	350	1.95	2.1	2.25	0.4	30	50	100	300	500	30	50	
KIA7023AT	○	15	350	2.15	2.3	2.45	0.4	30	50	100	300	500	30	50	
KIA7025AT	○	15	350	2.35	2.5	2.65	0.4	30	50	100	300	500	30	50	
KIA7027AT	○	15	350	2.55	2.7	2.85	0.4	30	50	100	300	500	30	50	
KIA7029AT	○	15	350	2.75	2.9	3.05	0.4	30	50	100	300	500	30	50	
KIA7031AT	○	15	350	2.95	3.1	3.25	0.4	30	50	100	300	500	30	50	
KIA7032AT	○	15	350	3.05	3.2	3.35	0.4	30	50	100	300	500	30	50	
KIA7033AT	○	15	350	3.15	3.3	3.45	0.4	30	50	100	300	500	30	50	
KIA7034AT	○	15	350	3.25	3.4	3.55	0.4	30	50	100	300	500	30	50	
KIA7035AT	○	15	350	3.35	3.5	3.65	0.4	30	50	100	300	500	30	50	
KIA7036AT	○	15	350	3.45	3.6	3.75	0.4	30	50	100	300	500	30	50	
KIA7039AT	○	15	350	3.75	3.9	4.05	0.4	30	50	100	300	500	30	50	
KIA7042AT	○	15	350	4.05	4.2	4.35	0.4	30	50	100	300	500	30	50	
KIA7045AT	○	15	350	4.35	4.5	4.65	0.4	30	50	100	300	500	30	50	

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

Power Management

■ Detector & Reset IC

▣ CMOS Detector IC (Active Low, CMOS/Open-drain Output Type)

Type No.	AEC-Q	Output Type	Max. Ratings		Reset Threshold $V_{th}(V)$			Accuracy (%)	Supply Current $I_{DD}(\mu A)$		PKG
			$V_{DD}(V)$	$I_{OUT}(mA)$	Min.	Max.	Step.		Typ.	Max.	
KIC7108~60P	●	CMOS	12	20	0.8	6	0.1	±1	0.25	1.0	TO-92
KIC7108~60T5	●		12	20	0.8	6	0.1	±1	0.25	1.0	TSV
KIC7108~60M	●		12	20	0.8	6	0.1	±1	0.25	1.0	SOT-23
KIC 7508~60P	●	Open-drain	12	20	0.8	6	0.1	±1	0.25	1.0	TO-92
KIC7508~60T5	○		12	20	0.8	6	0.1	±1	0.25	1.0	TSV
KIC7508~60M/M2	●		12	20	0.8	6	0.1	±1	0.25	1.0	SOT-23

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

▣ CMOS External Delay Reset IC (Active Low, CMOS/Open-drain Output Type)

Type No.	AEC-Q	Output Type	Max. Ratings		Reset Threshold $V_{th}(V)$			Accuracy (%)	Supply Current $I_{DD}(\mu A)$		PKG
			$V_{DD}(V)$	$I_{OUT}(mA)$	Min.	Max.	Step.		Typ.	Max.	
KIC7208~60T5	○	CMOS	12	20	0.8	6	0.1	±1	0.35	1.0	TSV
KIC7608~60T5	○	Open-drain									

Note) ○ : AEC-Q Qualified

▣ CMOS Internal Delay Reset IC (Active Low, CMOS/Open-drain Output Type)

Type No.	AEC-Q	Output Type	Max. Ratings		Reset Threshold $V_{th}(V)$			Accuracy (%)	Delay Time (ms)	Supply Current $I_{DD}(\mu A)$		PKG
			$V_{DD}(V)$	$I_{OUT}(mA)$	Min.	Max.	Step.			Typ.	Max.	
KIC73A~E16~50M/M2	○	CMOS	7	20	1.6	5	0.1	±1	A : 240 B : 50 C : 100 D : 200 E : 400	0.5	2.0	SOT-23
KIC73A~E16~50T/T2	○											TSM
KIC77A~E16~50M/M2	○	Open-drain										SOT-23
KIC77A~E16~50T/T2	○											TSM

Note) ○ : AEC-Q Qualified

▣ CMOS Internal Delay Reset + Manual Reset IC (Active Low, CMOS/Open-drain Output Type)

Type No.	AEC-Q	Output Type	Max. Ratings		Reset Threshold $V_{th}(V)$			Accuracy (%)	Delay Time (ms)	Supply Current $I_{DD}(\mu A)$		PKG
			$V_{DD}(V)$	$I_{OUT}(mA)$	Min.	Max.	Step.			Typ.	Max.	
KIC79A~E16~50T/T2	○	Open-drain	6	20	1.6	4.6	0.1	±1.5	A : 20 B : 50 C : 100 D : 200	0.1	2.0	TSV

Note) ○ : AEC-Q Qualified

■ Gate Driver

▣ Low Voltage Gate Driver

Type No.	AEC-Q	Max. Ratings		Topology	Target Switch	Bootstrap Diode	Charge Pump	LDO	Protections	FAULT Output	PKG
		V _{IN} (V)	R _{th(J-A)} (°C/W)				Output(V)	Output(V)			
KIB2040QN33	○	40	28	3-Phase	N-MOSFET	Internal	13	3.3	VREG/V3/VBS UVP VDS OVP OTP	Y	QFN-28
KIB2040QN50								5			

Note) ○ : AEC-Q Qualified

▣ High Voltage Gate Driver

Type No.	AEC-Q	Max. Ratings		Topology	Target Switch	Bootstrap Diode	Protections	FAULT Output	PKG
		V _{IN} (V)	R _{th(J-A)} (°C/W)						
KIB2642F	●	600	78	3-Phase	N-MOSFET IGBT	External	VCC / VBS UV OCP	Y	SOIC-28
KIB2645F*	●		TBD		IGBT				

Note) ● : Preparing for qualification of AEC-Q

Note) * : Under development

Power Management

■ Shunt Regulator

▣ 1.24V Shunt Regulator

Type No.	AEC-Q	Max. Ratings		Voltage Reference Tolerance Vref (%)	Minimum Cathode Current Imin(mA)	PKG
		V _{KA} (V)	I _c (mW)			
KIA2431P	●	16	50	1.5	0.08	TO-92
KIA2431AP	●	16	50	1	0.08	
KIA2431S	○	16	50	1.5	0.08	TSM
KIA2431AS	○	16	50	1	0.08	

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

▣ 2.495V Shunt Regulator

Type No.	AEC-Q	Max. Ratings		Voltage Reference Tolerance Vref (%)	Minimum Cathode Current Imin(mA)	PKG
		V _{KA} (V)	I _c (mW)			
KIA431A	●	37	150	1	1	TO-92
KIA431B	●	37	150	0.5	1	
KIA431ACP	●	37	150	1	0.6	
KIA431BCP	●	37	150	0.5	0.6	
KIA431AF	○	37	150	1	1	SOT-89
KIA431BF	○	37	150	0.5	1	
KIA431ACF	○	37	150	1	0.6	
KIA431BCF	○	37	150	0.5	0.6	
KIA431AM	○	37	150	1	1	SOT-23
KIA431BM	○	37	150	0.5	1	
KIA431ACM	○	37	150	1	0.6	
KIA431BCM	○	37	150	0.5	0.6	

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

▣ Low Imin Shunt Regulator

Type No.	AEC-Q	Max. Ratings		Vref	Voltage Reference Tolerance Vref (%)	Minimum Cathode Current Imin(mA)	PKG
		V _{KA} (V)	I _c (mW)				
KIA431LAM	●	40	150	2.495	1	0.1	SOT-23
KIA431LBM	●	40	150	2.495	0.5	0.1	
KIA431LCM	●	40	150	2.5	1	0.1	
KIA431LDM	●	40	150	2.5	0.5	0.1	

● : Preparing for qualification of AEC-Q

■ Regulator

▣ General Purpose

□ 0.15A General purpose Voltage Regulator

Type No.	AEC-Q	Max. Ratings			Output Voltage V _{OUT} (V)				Reg Line (mV)			Reg Load (mV)			Dropout Voltage VD (V)		PKG
		V _{IN} (V)	I _O (A)	P _D (W)	Min.	Typ.	Max.	@V _{IN}	Max.	@V _{IN} (V)		Max.	@I _{OUT} (mA)		Typ.	@I _{OUT} (mA)	
										Min.	Max.		Min.	Max.			
KIA78L05F	○	35	0.15	0.5	4.8	5	5.2	10	150	7	20	60	1	100	1.7	40	SOT-89
KIA78L06F	○	35	0.15	0.5	5.76	6	6.24	11	150	8.1	21	70	1	100	1.7	40	
KIA78L08F	○	35	0.15	0.5	7.7	8	8.3	14	175	10.5	23	80	1	100	1.7	40	
KIA78L09F	○	35	0.15	0.5	8.64	9	9.36	15	200	11.4	24	90	1	100	1.7	40	
KIA78L10F	○	35	0.15	0.5	9.6	10	10.4	16	230	12.5	25	90	1	100	1.7	40	
KIA78L12F	○	35	0.15	0.5	11.5	12	12.5	19	250	14.5	27	100	1	100	1.7	40	
KIA78L15F	○	35	0.15	0.5	14.4	15	15.6	23	300	17.5	30	150	1	100	1.7	40	
KIA78L18F	○	40	0.15	0.5	17.3	18	18.7	27	325	21.4	33	170	1	100	1.7	40	
KIA78L20F	○	40	0.15	0.5	19.2	20	20.8	29	330	23.5	35	180	1	100	1.7	40	
KIA78L24F	○	40	0.15	0.5	23	24	25	33	350	27.5	38	200	1	100	1.7	40	
KIA78L05BP	●	35	0.15	0.8	4.8	5	5.2	10	150	7	20	60	1	100	1.7	40	TO-92L
KIA78L06BP	●	35	0.15	0.8	5.76	6	6.24	11	150	8.1	21	70	1	100	1.7	40	
KIA78L08BP	●	35	0.15	0.8	7.7	8	8.3	14	175	10.5	23	80	1	100	1.7	40	
KIA78L09BP	●	35	0.15	0.8	8.64	9	9.36	15	200	11.4	24	90	1	100	1.7	40	
KIA78L10BP	●	35	0.15	0.8	9.6	10	10.4	16	230	12.5	25	90	1	100	1.7	40	
KIA78L12BP	●	35	0.15	0.8	11.5	12	12.5	19	250	14.5	27	100	1	100	1.7	40	
KIA78L15BP	●	35	0.15	0.8	14.4	15	15.6	23	300	17.5	30	150	1	100	1.7	40	
KIA78L18BP	●	40	0.15	0.8	17.3	18	18.7	27	325	21.4	33	170	1	100	1.7	40	
KIA78L20BP	●	40	0.15	0.8	19.2	20	20.8	29	330	23.5	35	180	1	100	1.7	40	
KIA78L24BP	●	40	0.15	0.8	23	24	25	33	350	27.5	38	200	1	100	1.7	40	
KIA78S05P	●	35	0.15	0.6	4.8	5	5.2	10	150	7	20	60	1	100	1.7	40	TO-92
KIA78S06P	●	35	0.15	0.6	5.76	6	6.24	11	150	8.1	21	70	1	100	1.7	40	
KIA78S08P	●	35	0.15	0.6	7.7	8	8.3	14	175	10.5	23	80	1	100	1.7	40	
KIA78S09P	●	35	0.15	0.6	8.64	9	9.36	15	200	11.4	24	90	1	100	1.7	40	
KIA78S10P	●	35	0.15	0.6	9.6	10	10.4	16	230	12.5	25	90	1	100	1.7	40	
KIA78S12P	●	35	0.15	0.6	11.5	12	12.5	19	250	14.5	27	100	1	100	1.7	40	
KIA78S15P	●	35	0.15	0.6	14.4	15	15.6	23	300	17.5	30	150	1	100	1.7	40	
KIA78S18P	●	40	0.15	0.6	17.3	18	18.7	27	325	21.4	33	170	1	100	1.7	40	
KIA78S20P	●	40	0.15	0.6	19.2	20	20.8	29	330	23.5	35	180	1	100	1.7	40	
KIA78S24P	●	40	0.15	0.6	23	24	25	33	350	27.5	38	200	1	100	1.7	40	

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q



Power Management

Regulator

General Purpose

0.5A General purpose Voltage Regulator

Type No.	AEC-Q	Max. Ratings			Output Voltage $V_{out}(V)$				Reg Line (mV)			Reg Load (mV)			Dropout Voltage $V_D(V)$		PKG
		$V_{IN}(V)$	$I_O(A)$	$P_D(W)$	Min.	Typ.	Max.	@ V_{IN}	Max.	@ $V_{IN}(V)$		Max.	@ $I_{out}(mA)$		Typ.	@ $I_{out}(mA)$	
										Min.	Max.		Min.	Max.			
KIA78M05PI	○	35	0.5	2	4.8	5	5.2	10	100	7.2	25	100	5	500	2	500	TO-220IS
KIA78M08PI	○	35	0.5	2	7.7	8	8.3	14	100	10.5	25	100	5	500	2	500	
KIA78M12PI	○	35	0.5	2	11.5	12	12.5	19	100	14.5	30	240	5	500	2	500	
KIA78M15PI	○	35	0.5	2	14.4	15	15.6	23	100	17.5	30	300	5	500	2	500	
KIA78M05F	○	35	0.5	1.3	4.8	5	5.2	10	100	7.2	25	100	5	500	2	500	DPAK, DPAK(3)
KIA78M08F	○	35	0.5	1.3	7.7	8	8.3	14	100	10.5	25	100	5	500	2	500	
KIA78M12F	○	35	0.5	1.3	11.5	12	12.5	19	100	14.5	30	240	5	500	2	500	
KIA78M15F	○	35	0.5	1.3	14.4	15	15.6	23	100	17.5	30	300	5	500	2	500	

Note) ○ : AEC-Q Qualified

1A General purpose Voltage Regulator

Type No.	AEC-Q	Max. Ratings			Output Voltage $V_{out}(V)$				Reg Line (mV)			Reg Load (mV)			Dropout Voltage $V_D(V)$		PKG
		$V_{IN}(V)$	$I_O(A)$	$P_D(W)$	Min.	Typ.	Max.	@ V_{IN}	Max.	@ $V_{IN}(V)$		Max.	@ $I_{out}(mA)$		Typ.	@ $I_{out}(mA)$	
										Min.	Max.		Min.	Max.			
KIA7805API	○	35	1	2	4.8	5	5.2	10	100	7	25	100	5	1400	2	1000	TO-220IS
KIA7806API	○	35	1	2	5.75	6	6.25	11	120	8	25	120	5	1400	2	1000	
KIA7807API	○	35	1	2	6.72	7	7.28	12	140	9	25	140	5	1400	2	1000	
KIA7808API	○	35	1	2	7.7	8	8.3	14	160	10.5	25	160	5	1400	2	1000	
KIA7809API	○	35	1	2	8.64	9	9.36	15	180	11.5	26	180	5	1400	2	1000	
KIA7810API	○	35	1	2	9.6	10	10.4	16	200	12.5	27	200	5	1400	2	1000	
KIA7812API	○	35	1	2	11.5	12	12.5	19	240	14.5	30	240	5	1400	2	1000	
KIA7815API	○	35	1	2	14.4	15	15.6	23	300	17.5	30	300	5	1400	2	1000	
KIA7818API	○	40	1	2	17.3	18	18.7	27	360	21	33	360	5	1400	2	1000	
KIA7820API	○	40	1	2	19.2	20	20.8	29	400	23	35	400	5	1400	2	1000	
KIA7824API	○	40	1	2	23	24	25	33	480	27	38	480	5	1400	2	1000	
KIA7805AF	○	35	1	1.3	4.8	5	5.2	10	100	7	25	100	5	1400	2	1000	DPAK, DPAK(3), DPAK(4)
KIA7806AF	○	35	1	1.3	5.75	6	6.25	11	120	8	25	120	5	1400	2	1000	
KIA7807AF	○	35	1	1.3	6.72	7	7.28	12	140	9	25	140	5	1400	2	1000	
KIA7808AF	○	35	1	1.3	7.7	8	8.3	14	160	10.5	25	160	5	1400	2	1000	
KIA7809AF	○	35	1	1.3	8.64	9	9.36	15	180	11.5	26	180	5	1400	2	1000	
KIA7810AF	○	35	1	1.3	9.6	10	10.4	16	200	12.5	27	200	5	1400	2	1000	
KIA7812AF	○	35	1	1.3	11.5	12	12.5	19	240	14.5	30	240	5	1400	2	1000	
KIA7815AF	○	35	1	1.3	14.4	15	15.6	23	300	17.5	30	300	5	1400	2	1000	
KIA7818AF	○	40	1	1.3	17.3	18	18.7	27	360	21	33	360	5	1400	2	1000	
KIA7820AF	○	40	1	1.3	19.2	20	20.8	29	400	23	35	400	5	1400	2	1000	
KIA7824AF	○	40	1	1.3	23	24	25	33	480	27	38	480	5	1400	2	1000	

Note) ○ : AEC-Q Qualified

■ Regulator

▣ Negative

□ 0.15A Negative General purpose Voltage Regulator

Type No.	AEC-Q	Max. Ratings			Output Voltage $V_{out}(V)$				Reg Line (mV)			Reg Load (mV)			Dropout Voltage $V_D(V)$		PKG
		$V_{IN}(V)$	$I_O(A)$	$P_D(W)$	Min.	Typ.	Max.	@ V_{IN}	Max.	@ $V_{IN}(V)$		Max.	@ $I_{out}(mA)$		Typ.	@ $I_{out}(mA)$	
										Min.	Max.		Min.	Max.			
KIA79L05F	○	-35	0.15	0.5	-5.2	-5	-4.8	-10	150	-20	-7	60	1	100	1.7	40	SOT-89
KIA79L06F	○	-35	0.15	0.5	-6.24	-6	-5.76	-11	150	-21	-8.1	70	1	100	1.7	40	
KIA79L08F	○	-35	0.15	0.5	-8.3	-8	-7.7	-14	175	-23	-10.5	80	1	100	1.7	40	
KIA79L09F	○	-35	0.15	0.5	-9.36	-9	-8.64	-15	200	-24	-11.4	90	1	100	1.7	40	
KIA79L10F	○	-35	0.15	0.5	-10.4	-10	-9.6	-16	230	-25	-12.5	90	1	100	1.7	40	
KIA79L12F	○	-35	0.15	0.5	-12.5	-12	-11.5	-19	250	-27	-14.5	100	1	100	1.7	40	
KIA79L15F	●	-35	0.15	0.5	-15.6	-15	-14.4	-23	300	-30	-17.5	150	1	100	1.7	40	
KIA79L18F	●	-40	0.15	0.5	-18.7	-18	-17.3	-27	325	-33	-20.7	170	1	100	1.7	40	
KIA79L20F	●	-40	0.15	0.5	-20.8	-20	-19.2	-29	330	-35	-23.5	180	1	100	1.7	40	
KIA79L24F	●	-40	0.15	0.5	-25	-24	-23	-33	350	-38	-27	200	1	100	1.7	40	
KIA79L05BP	●	-35	0.15	0.8	-5.2	-5	-4.8	-10	150	-20	-7	60	1	100	1.7	40	TO-92L
KIA79L06BP	●	-35	0.15	0.8	-6.24	-6	-5.76	-11	150	-21	-8.1	70	1	100	1.7	40	
KIA79L08BP	●	-35	0.15	0.8	-8.3	-8	-7.7	-14	175	-23	-10.5	80	1	100	1.7	40	
KIA79L09BP	●	-35	0.15	0.8	-9.36	-9	-8.64	-15	200	-24	-11.4	90	1	100	1.7	40	
KIA79L10BP	●	-35	0.15	0.8	-10.4	-10	-9.6	-16	230	-25	-12.5	90	1	100	1.7	40	
KIA79L12BP	●	-35	0.15	0.8	-12.5	-12	-11.5	-19	250	-27	-14.5	100	1	100	1.7	40	
KIA79L15BP	●	-35	0.15	0.8	-15.6	-15	-14.4	-23	300	-30	-17.5	150	1	100	1.7	40	
KIA79L18BP	●	-40	0.15	0.8	-18.7	-18	-17.3	-27	325	-33	-20.7	170	1	100	1.7	40	
KIA79L20BP	●	-40	0.15	0.8	-20.8	-20	-19.2	-29	330	-35	-23.5	180	1	100	1.7	40	
KIA79L24BP	●	-40	0.15	0.8	-25	-24	-23	-33	350	-38	-27	200	1	100	1.7	40	
KIA79S05P	●	-35	0.15	0.6	-5.2	-5	-4.8	-10	150	-20	-7	60	1	100	1.7	40	TO-92
KIA79S06P	●	-35	0.15	0.6	-6.24	-6	-5.76	-11	150	-21	-8.1	70	1	100	1.7	40	
KIA79S08P	●	-35	0.15	0.6	-8.3	-8	-7.7	-14	175	-23	-10.5	80	1	100	1.7	40	
KIA79S09P	●	-35	0.15	0.6	-9.36	-9	-8.64	-15	200	-24	-11.4	90	1	100	1.7	40	
KIA79S10P	●	-35	0.15	0.6	-10.4	-10	-9.6	-16	230	-25	-12.5	90	1	100	1.7	40	
KIA79S12P	●	-35	0.15	0.6	-12.5	-12	-11.5	-19	250	-27	-14.5	100	1	100	1.7	40	
KIA79S15P	●	-35	0.15	0.6	-15.6	-15	-14.4	-23	300	-30	-17.5	150	1	100	1.7	40	
KIA79S18P	●	-35	0.15	0.6	-18.7	-18	-17.3	-27	325	-33	-20.7	170	1	100	1.7	40	
KIA79S20P	●	-35	0.15	0.6	-20.8	-20	-19.2	-29	330	-35	-23.5	180	1	100	1.7	40	
KIA79S24P	●	-35	0.15	0.6	-25	-24	-23	-33	350	-38	-27	200	1	100	1.7	40	

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

Power Management

Regulator

Negative

1A Negative General purpose Voltage Regulator

Type No.	AEC-Q	Max. Ratings			Output Voltage $V_{out}(V)$				Reg Line (mV)			Reg Load (mV)			Dropout Voltage $V_D(V)$		PKG
		$V_{IN}(V)$	$I_O(A)$	$P_D(W)$	Min.	Typ.	Max.	@ V_{IN}	Max.	@ $V_{IN}(V)$		Max.	@ $I_{out}(mA)$		Typ.	@ $I_{out}(mA)$	
										Min.	Max.		Min.	Max.			
KIA7905PI	○	-35	1	2	-5.2	-5	-4.8	-10	50	-12	-8	100	5	1500	2	1000	TO-220IS
KIA7906PI	○	-35	1	2	-6.25	-6	-5.75	-11	60	-13	-9	120	5	1500	2	1000	
KIA7907PI	○	-35	1	2	-7.28	-7	-6.72	-12	70	-15	-10	140	5	1500	2	1000	
KIA7908PI	○	-35	1	2	-8.3	-8	-7.7	-14	80	-17	-11	160	5	1500	2	1000	
KIA7909PI	○	-35	1	2	-9.3	-9	-8.7	-15	90	-19	-13	150	5	1500	2	1000	
KIA7910PI	○	-35	1	2	-10.4	-10	-9.6	-16	100	-20	-14	180	5	1500	2	1000	
KIA7912PI	○	-35	1	2	-12.5	-12	-11.5	-18	120	-22	-16	240	5	1500	2	1000	
KIA7915PI	○	-35	1	2	-15.6	-15	-14.4	-23	150	-26	-20	300	5	1500	2	1000	
KIA7918PI	○	-40	1	2	-18.7	-18	-17.3	-27	180	-30	-24	360	5	1500	2	1000	
KIA7920PI	○	-40	1	2	-20.8	-20	-19.2	-30	180	-32	-26	360	5	1500	2	1000	
KIA7924PI	○	-40	1	2	-25	-24	-23	-33	240	-36	-30	480	5	1500	2	1000	
KIA7905F	○	-35	1	1.3	-5.2	-5	-4.8	-10	50	-12	-8	100	5	1500	2	1000	
KIA7906F	○	-35	1	1.3	-6.25	-6	-5.75	-11	60	-13	-9	120	5	1500	2	1000	
KIA7907F	○	-35	1	1.3	-7.28	-7	-6.72	-12	70	-15	-10	140	5	1500	2	1000	
KIA7908F	○	-35	1	1.3	-8.3	-8	-7.7	-14	80	-17	-11	160	5	1500	2	1000	
KIA7909F	○	-35	1	1.3	-9.3	-9	-8.7	-15	90	-19	-13	150	5	1500	2	1000	
KIA7910F	○	-35	1	1.3	-10.4	-10	-9.6	-16	100	-20	-14	180	5	1500	2	1000	
KIA7912F	○	-35	1	1.3	-12.5	-12	-11.5	-18	120	-22	-16	240	5	1500	2	1000	
KIA7915F	○	-35	1	1.3	-15.6	-15	-14.4	-23	150	-26	-20	300	5	1500	2	1000	
KIA7918F	○	-40	1	1.3	-18.7	-18	-17.3	-27	180	-30	-24	360	5	1500	2	1000	
KIA7920F	○	-40	1	1.3	-20.8	-20	-19.2	-30	180	-32	-26	360	5	1500	2	1000	
KIA7924F	○	-40	1	1.3	-25	-24	-23	-33	240	-36	-30	480	5	1500	2	1000	

Note) ○ : AEC-Q Qualified

■ Regulator

■ Bipolar LDO

□ 0.25A LDO Voltage Regulator

Type No.	AEC-Q	Max. Ratings			Output Voltage $V_{out}(V)$				Dropout Voltage $V_D (V)$		PKG
		V_{IN} (V)	I_o (A)	P_D (W)	Min.	Typ.	Max.	@ V_{IN}	Typ.	@ I_{out} (mA)	
KIA78DL05PI	○	29	0.25	2.0	4.5	5	5.5	14	0.15	50	TO-220IS
KIA78DL06PI	○	29	0.25	2.0	5.4	6	6.6	14	0.15	50	
KIA78DL08PI	○	29	0.25	2.0	7.2	8	8.8	16	0.15	50	
KIA78DL09PI	○	29	0.25	2.0	8.1	9	9.9	16	0.15	50	
KIA78DL10PI	○	29	0.25	2.0	9	10	11	16	0.15	50	
KIA78DL12PI	○	29	0.25	2.0	10.8	12	13.2	18	0.15	50	
KIA78DL15PI	○	29	0.25	2.0	13.5	15	16.5	20	0.15	50	
KIA78DL05F	○	29	0.25	1.3	4.5	5	5.5	14	0.15	50	DPAK, DPAK(3)
KIA78DL06F	○	29	0.25	1.3	5.4	6	6.6	14	0.15	50	
KIA78DL08F	○	29	0.25	1.3	7.2	8	8.8	16	0.15	50	
KIA78DL09F	○	29	0.25	1.3	8.1	9	9.9	16	0.15	50	
KIA78DL10F	○	29	0.25	1.3	9	10	11	16	0.15	50	
KIA78DL12F	○	29	0.25	1.3	10.8	12	13.2	18	0.15	50	
KIA78DL15F	○	29	0.25	1.3	13.5	15	16.5	20	0.15	50	

Note) ○ : AEC-Q Qualified

□ 1A LDO Voltage Regulator

Type No.	AEC-Q	Max. Ratings			Output Voltage $V_{out}(V)$				Dropout Voltage $V_D (V)$		PKG
		V_{IN} (V)	I_o (A)	P_D (W)	Min.	Typ.	Max.	@ V_{IN}	Typ.	@ I_{out} (mA)	
KIA78D15API	●	15	1	1.7	1.47	1.5	1.53	2.5	0.25	500	TO-220IS
KIA78D18API	●	15	1	1.7	1.76	1.8	1.84	2.5	0.25	500	
KIA78D20API	●	15	1	1.7	1.96	2.0	2.04	2.5	0.25	500	
KIA78D25API	●	15	1	1.7	2.45	2.5	2.55	4.5	0.25	500	
KIA78D30API	●	15	1	1.7	2.94	3.0	3.06	5.0	0.25	500	
KIA78D33API	●	15	1	1.7	3.23	3.3	3.37	5.3	0.25	500	
KIA78D35API	●	15	1	1.7	3.43	3.5	3.57	5.5	0.25	500	
KIA78D05API	●	15	1	1.7	4.9	5.0	5.1	7.0	0.25	500	
KIA78D15AF	●	15	1	1.0	1.47	1.5	1.53	2.5	0.25	500	DPAK, DPAK(3)
KIA78D18AF	○	15	1	1.0	1.764	1.8	1.836	2.5	0.25	500	
KIA78D20AF	●	15	1	1.0	1.96	2.0	2.04	2.5	0.25	500	
KIA78D25AF	●	15	1	1.0	2.45	2.5	2.55	4.5	0.25	500	
KIA78D30AF	●	15	1	1.0	2.94	3.0	3.06	5.0	0.25	500	
KIA78D33AF	○	15	1	1.0	3.234	3.3	3.366	5.3	0.25	500	
KIA78D35AF	●	15	1	1.0	3.43	3.5	3.57	5.5	0.25	500	
KIA78D05AF	○	15	1	1.0	4.9	5.0	5.1	7.0	0.25	500	

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

Power Management

■ Regulator

■ Bipolar LDO

1A LDO Voltage Regulator (On/Off Controllable)

Type No.	AEC-Q	Max. Ratings			Output Voltage $V_{OUT}(V)$				Dropout Voltage $V_D (V)$		PKG
		V_{IN} (V)	I_O (A)	P_D (W)	Min.	Typ.	Max.	@ V_{IN}	Typ.	@ I_{OUT} (mA)	
KIA78R00PI	○	35	1	1.5	1.50	Adj.	30.00	-	0.5	1000	TO-220IS-4
KIA78R25PI	○	35	1	1.5	2.44	2.5	2.56	4.2	0.5	1000	
KIA78R33PI	○	35	1	1.5	3.22	3.3	3.38	5	0.5	1000	
KIA78R35PI	○	35	1	1.5	3.41	3.5	3.587	5.2	0.5	1000	
KIA78R05PI	○	35	1	1.5	4.88	5	5.12	7	0.5	1000	
KIA78R06PI	○	35	1	1.5	5.85	6	6.15	8	0.5	1000	
KIA78R08PI	○	35	1	1.5	7.8	8	8.2	10	0.5	1000	
KIA78R09PI	○	35	1	1.5	8.78	9	9.22	15	0.5	1000	
KIA78R10PI	○	35	1	1.5	9.75	10	10.25	16	0.5	1000	
KIA78R12PI	○	35	1	1.5	11.7	12	12.3	18	0.5	1000	
KIA78R15PI	○	35	1	1.5	14.7	15	15.3	21	0.5	1000	

Note) ○ : AEC-Q Qualified

2A LDO Voltage Regulator (On/Off Controllable)

Type No.	AEC-Q	Max. Ratings			Output Voltage $V_{OUT}(V)$				Dropout Voltage $V_D (V)$		PKG
		V_{IN} (V)	I_O (A)	P_D (W)	Min.	Typ.	Max.	@ V_{IN}	Typ.	@ I_{OUT} (mA)	
KIA278R00PI	○	35	2	1.5	1.50	Adj.	30.00	-	0.5	2000	TO-220IS-4
KIA278R05PI	○	35	2	1.5	4.88	5	5.12	7	0.5	2000	
KIA278R06PI	○	35	2	1.5	5.85	6	6.15	8	0.5	2000	
KIA278R08PI	○	35	2	1.5	7.8	8	8.2	10	0.5	2000	
KIA278R09PI	○	35	2	1.5	8.78	9	9.22	15	0.5	2000	
KIA278R10PI	○	35	2	1.5	9.75	10	10.25	16	0.5	2000	
KIA278R12PI	○	35	2	1.5	11.7	12	12.3	18	0.5	2000	
KIA278R15PI	○	35	2	1.5	14.7	15	15.3	21	0.5	2000	

Note) ○ : AEC-Q Qualified

Regulator

 Bipolar LDO

 3A LDO Voltage Regulator (On/Off Controllable)

Type No.	AEC-Q	Max. Ratings			Output Voltage $V_{OUT}(V)$				Dropout Voltage $V_D (V)$		PKG
		V_{IN} (V)	I_O (A)	P_D (W)	Min.	Typ.	Max.	@ V_{IN}	Typ.	@ I_{OUT} (mA)	
KIA378R00PI	○	35	3	1.5	1.50	Adj.	30.00	-	0.5	3000	TO-220IS-4
KIA378R25PI	○	35	3	1.5	2.438	2.5	2.562	4.2	0.5	3000	
KIA378R33PI	○	35	3	1.5	3.22	3.3	3.38	5	0.5	3000	
KIA378R35PI	○	35	3	1.5	3.413	3.5	3.587	5.2	0.5	3000	
KIA378R05PI	○	35	3	1.5	4.88	5	5.12	7	0.5	3000	
KIA378R06PI	○	35	3	1.5	5.85	6	6.15	8	0.5	3000	
KIA378R08PI	○	35	3	1.5	7.8	8	8.2	10	0.5	3000	
KIA378R09PI	○	35	3	1.5	8.78	9	9.22	15	0.5	3000	
KIA378R10PI	○	35	3	1.5	9.75	10	10.25	16	0.5	3000	
KIA378R12PI	○	35	3	1.5	11.7	12	12.3	18	0.5	3000	
KIA378R15PI	○	35	3	1.5	14.7	15	15.3	21	0.5	3000	

Note) ○ : AEC-Q Qualified

Power Management

■ Regulator

☑ CMOS LDO

☐ 0.25A LDO Voltage Regulator

Type No.	AEC-Q	Max. Ratings			Output Voltage $V_{out}(V)$				Reg Line (V)			Reg Load (mV)			Dropout Voltage V_D (mV)		PKG
		V_{IN} (V)	I_O (A)	P_D (W)	Min.	Typ.	Max.	@ V_{IN}	Max.	@ $V_{IN}(V)$		Max.	@ $I_{out}(mA)$		Typ.	@ I_{out} (mA)	
										Min.	Max.		Min.	Max.			
KIC3252S33	●	12	0.5	0.5	3.23	3.3	3.37	$V_{OUT}+1V$	0.3	$V_{OUT}+1V$	10	90	1	80	180	80	SOT-89
KIC3252S50	●	12	0.5	0.5	4.90	5	5.10	$V_{OUT}+1V$	0.3	$V_{OUT}+1V$	10	80	1	100	120	100	

Note) ● : Preparing for qualification of AEC-Q

☐ 0.3A CMOS LDO Voltage Regulator (ON/OFF Controllable)

Type No.	AEC-Q	Max. Ratings			Output Voltage $V_{out}(V)$				Reg Line (%/V)			Reg Load (mV)			Dropout Voltage V_D (mV)		PKG
		V_{IN} (V)	I_O (A)	P_D (W)	Min.	Typ.	Max.	@ V_{IN}	Max.	@ $V_{IN}(V)$		Max.	@ $I_{out}(mA)$		Typ.	@ I_{out} (mA)	
										Min.	Max.		Min.	Max.			
KIC3222T30	●	7	0.5	0.35	2.97	3	3.03	$V_{OUT}+1V$	0.2	$V_{OUT}+0.5V$	6.5	80	0	200	160	200	TSV
KIC3222T33	●	7	0.5	0.35	3.27	3.3	3.33	$V_{OUT}+1V$	0.2	$V_{OUT}+0.5V$	6.5	80	0	200	160	200	

Note) ● : Preparing for qualification of AEC-Q

☐ 1A CMOS LDO Adjustable Voltage Regulator (ON/OFF Controllable)

Type No.	AEC-Q	Max. Ratings			Output Voltage $V_{out}(V)$				Reg Line (%/V)			Reg Load (mV)			Dropout Voltage V_D (mV)		PKG
		V_{IN} (V)	I_O (A)	P_D (W)	Min.	Typ.	Max.	@ V_{IN}	Max.	@ $V_{IN}(V)$		Max.	@ $I_{out}(mA)$		Typ.	@ I_{out} (mA)	
										Min.	Max.		Min.	Max.			
KIC3242EF00	●	6.5	1	0.7	1.2	Adj.	5	$V_{OUT}+1V$	0.2	$V_{OUT}+1V$	6	20mV	1	300	300	1000	eFLP-8
KIC3244F00	○	7	1	1.25	1.2	Adj.	5	$V_{OUT}+1V$	0.2	$V_{OUT}+1V$	6.5	0.002%	1	300	300	1000	DPAK-5G

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

☐ 2A CMOS LDO Adjustable Voltage Regulator (ON/OFF Controllable)

Type No.	AEC-Q	Max. Ratings			Output Voltage $V_{out}(V)$				Reg Line (%/V)			Reg Load (%)			Dropout Voltage V_D (mV)		PKG
		V_{IN} (V)	I_O (A)	P_D (W)	Min.	Typ.	Max.	@ V_{IN}	Max.	@ $V_{IN}(V)$		Max.	@ $I_{out}(mA)$		Typ.	@ I_{out} (mA)	
										Min.	Max.		Min.	Max.			
KIC3243EF00	●	6.5	2	0.7	1	Adj.	3.3	$V_{OUT}+1V$	0.25	$V_{OUT}+1V$	5.5	0.2	10	2000	400	2000	eFLP-8

Note) ● : Preparing for qualification of AEC-Q

■ Transistor Array & Interface Driver IC

■ Single Driver

Type No.	AEC-Q	Function	Channel No.	Clamp Diode	V _{CE0} (V)	I _c (mA/ch)	PKG
KID65501P	○	Single Driver (Common Emitter)	7	-	35	200	DIP-16
KID65502P	○	Single Driver (Common Emitter)	7	-	35	200	
KID65503P	○	Single Driver (Common Emitter)	7	-	35	200	
KID65504P	○	Single Driver (Common Emitter)	7	-	35	200	
KID65505P	○	Single Driver (Common Collector)	7	-	35	200	
KID65506P	○	Single Driver (Common Collector)	7	-	35	200	
KID65507P	○	Single Driver (Isolated)	5	-	35	200	
KID65501F	○	Single Driver (Common Emitter)	7	-	35	200	FLP-16
KID65502F	○	Single Driver (Common Emitter)	7	-	35	200	
KID65503F	○	Single Driver (Common Emitter)	7	-	35	200	
KID65504F	○	Single Driver (Common Emitter)	7	-	35	200	
KID65505F	○	Single Driver (Common Collector)	7	-	35	200	
KID65506F	○	Single Driver (Common Collector)	7	-	35	200	
KID65507F	○	Single Driver (Isolated)	5	-	35	200	

Note) ○ : AEC-Q Qualified

■ Darlington Driver

Type No.	AEC-Q	Function	Channel No.	Clamp Diode	V _{CE0} (V)	@I _{out} (mA/ch)	PKG
KID65001AP	○	Darlington Driver	7	●	50	500	DIP-16
KID65002AP	○	Darlington Driver	7	●	50	500	
KID65003AP	○	Darlington Driver	7	●	50	500	
KID65004AP	○	Darlington Driver	7	●	50	500	
KID65001AF	○	Darlington Driver	7	●	50	500	FLP-16
KID65002AF	○	Darlington Driver	7	●	50	500	
KID65003AF	○	Darlington Driver	7	●	50	500	
KID65004AF	○	Darlington Driver	7	●	50	500	
KID65003FT	○	Darlington Driver	7	●	50	500	TSSOP-16
KID65083AP	○	Darlington Driver	8	●	50	500	DIP-18(1)
KID65084AP	○	Darlington Driver	8	●	50	500	
KID65083AF	○	Darlington Driver	8	●	50	500	FLP-20
KID65084AF	○	Darlington Driver	8	●	50	500	
KID65083BF	○	Darlington Driver	8	●	50	500	FLP-18

Note) ○ : AEC-Q Qualified

■ High Voltage Source Driver

Type No.	AEC-Q	Function	Channel No.	Clamp Diode	V _{CC} (V)	I _{out} (mA/ch)	PKG
KID65783AP	○	High Voltage Source Driver	8	●	50	-500	DIP-18(1)
KID65783AF	○	High Voltage Source Driver	8	●	50	-500	FLP-20
KID65783BF	○	High Voltage Source Driver	8	●	50	-500	FLP-18

Note) ○ : AEC-Q Qualified

Power Management

■ Switching Regulator IC (DC/DC Converter)

Type No.	AEC-Q	Max. Ratings		Threshold Voltage V _{TH} (V)	Frequency f _{osc}	PKG
		V _{CC} (V)	I _{sw} (A)			
KIA34063A	●	40	1.5	1.25	33 kHz	DIP-8
KIA34063AF	●	40	1.5	1.25	33 kHz	FLP-8

Note) ● : Preparing for qualification of AEC-Q

■ Power Supply Controller

Type No.	AEC-Q	Topology	Function	Control Mode	V _{IN} (Max.) (V)	Duty Cycle (Max.) (%)	Frequency (Max.) (kHz)	PKG
KIA494AP	●	Buck, Boost, Fly-back, Forward, Half-bridge, Full-bridge, Push-Pull	Standard PWM Controller	Voltage	40	451	300	DIP-16
KIA494AF	●	Buck, Boost, Fly-back, Forward, Half-bridge, Full-bridge, Push-Pull	Standard PWM Controller	Voltage	40	451	300	FLP-16

Note) ● : Preparing for qualification of AEC-Q

■ AC/DC Control IC

Type No.	AEC-Q	Topology	Function	Control Mode	V _{IN} (Max.) (V)	Duty Cycle (Max.) (%)	Frequency (Max.) (kHz)	Startup Current (μ A)	UVLO Threshold on/off(V)	Protection	PKG
KIC3926S	●	Fly-back, SSR	Quasi-Resonant PWM Controller	Current	30	80	69	3	15.5/7.5	Input OVP Output OVP OCP OTP	SOT23-6L(1)

Note) ● : Preparing for qualification of AEC-Q

■ LED Driver IC

Type No.	AEC-Q	Topology	Function	Control Mode	V _{IN} (Max.) (V)	Current Accuracy (%)	Efficiency (%)	Protection	PKG
KIC3522F	●	Fly-back, PSR	Isolated PFC	Current	23	\pm 2.5	90	Open/Short LED Protection	FLP-8

Note) ● : Preparing for qualification of AEC-Q

■ Audio Amplifier

Type No.	AEC-Q	Max. Ratings		Load Z(Ω)		Differential Gain (dB)	Gain Bandwidth Product (MHz)	Max. Output Power (mW)	THD(%)		PSRR (dB)	Muting (dB)	Output Offset Voltage	PKG
		V _{IN} (V)	I _{OUT} (mA)	Min.	Max.				Typ.	Max.			VO1-VO2 (mV)	
KIA6419F	○	18	\pm 250	8	100	46	1.5	400	0.5	1	52	> 70	\pm 30	FLP-8
KIA6419P	●	18	\pm 250	8	100	46	1.5	400	0.5	1	52	> 70	\pm 30	DIP-8

Note) ○ : AEC-Q Qualified, ● : Preparing for qualification of AEC-Q

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
278R12L-TF4-T	UTC	KIA278R12PI	BA2904SF	ROHM	KIA2904F	LD1117AG-50-TN3	UTC	KIA78D05AF
78D05G-TN3-R	UTC	KIA78M05F	BA33BC0FP-E2	ROHM	KIA78D33AF	LDK220M33R	STMICRO	KIC322T33
78D15AG-TN3-R	UTC	KIA7815AF	BA3472F	ROHM	KIA358F	LF33CDT	STMICRO	KIA78D33AF
78D15LG-AB3-B-R	UTC	KIA78L15F	BA3472FJ	ROHM	KIA358F	LF50CDT	STMICRO	KIA78D05AF
78L05G-AB3-R	UTC	KIA78L05F	BA4558F	ROHM	KIA4558F	LM124DR	TI	KIA324F
78L15G-AB3-R	UTC	KIA78L15F	BA4560F	ROHM	KIA4558F	LM224D	TI	KIA324F
78N05G-AB3-R	UTC	KIA78L05F	BA4560FJ	ROHM	KIA4558F	LM224DR2G	ONSEMI	KIA324F
82N30G-AE3-5-R	UTC	KIC7530M	BA4560RF	ROHM	KIA4558F	LM224DT	STMICRO	KIA324F
AN6562S	PANASONIC	KIA358F	BA4560RFJ	ROHM	KIA4558F	LM224WDT	STMICRO	KIA324F
AP431SAN1TR-G1	DIODES	KIA431BM	BA50BC0FP	ROHM	KIA78D05AF	LM239ADR	TI	KIA339F
AS321KTR-G1	DIODES	KIA75S358F	BA8391G	ROHM	KIA75S393F	LM258ADR	TI	KIA358F
AS358M	DIODES	KIA358F	BD2222G-GTR	ROHM	KIC6961T	LM258ADT	STMICRO	KIA358F
AS431ANTR-E1	BCD	KIA431BM	BD2244G-MGTR	ROHM	KIC6961T	LM258DR	TI	KIA358F
AS431ANTR-G1	DIODES	KIA431BM	BD4827G	ROHM	KIC7527T5	LM258DR2G	ONSEMI	KIA358F
AS7812ADTR-G1	DIODES	KIA7812AF	BD5229G	ROHM	KIC7629T5	LM2901DR	TI	KIA339F
AS7815ADTR-G1	DIODES	KIA7815AF	BD5240G	ROHM	KIC7640T5	LM2902DR	TI	KIA324F
AS78L05RTR-E1	BCD	KIA78L05F	BD5242G	ROHM	KIC7242T5	LM2902DR2G	ONSEMI	KIA324F
AS78L05RTR-E1	DIODES	KIA78L05F	BD5243G	ROHM	KIC7643T5	LM2902EDR2G	ONSEMI	KIA324F
AZ431AN-ATRE1	DIODES	KIA431BM	BD52E27G	ROHM	KIC7627T5	LM2902F	ROHM	KIA324F
AZ431AN-ATRG1	DIODES	KIA431BM	BD5330G	ROHM	KIC7230T5	LM2903	STMICRO	KIA393F/KIA393P
AZ431AZ-ATRE1	DIODES	KIA431B	BH33FB1WG	ROHM	KIC322T33	LM2903D	STMICRO	KIA393F
BA033CC0T	ROHM	KIA78D33API	BL78L05	GALAXY	KIA78L05F	LM2903DR	TI	KIA393F
BA05CC0FP	ROHM	KIA78D05F	BU33SD2MG-M	ROHM	KIC322T33	LM2903DR2G	ONSEMI	KIA393F
BA10339F	ROHM	KIA339F	BU33TD3WG	ROHM	KIC322T33	LM2903F	ROHM	KIA393F
BA10358F	ROHM	KIA358F	BU33TD3WG-TR	ROHM	KIC322T33	LM2903FJ	ROHM	KIA393F
BA10358FJ	ROHM	KIA358F	BU4242G	ROHM	KIC7642T5	LM2903FJ-E2	STMICRO	KIA393F
BA10393F	ROHM	KIA393F	BY4558YF-M	ROHM	KIA4558F	LM2903M	TI	KIA393F
BA12003BF	ROHM	KID65003AF	HA178L05A-TZ	RENESAS	KIA78L05BP	LM2903P	TI	KIA393P
BA12004BF	ROHM	KID65004AF	IK62083DW	IK SEMI	KID65083BF	LM2903PSR	TI	KIA393F
BA17805CP	ROHM	KIA7805API	ILN2003AD	IK SEMI	KID65003AF	LM2903VQDRG4Q1	TI	KIA393F
BA17805FP	ROHM	KIA7805AF	KA358	ONSEMI	KIA358P	LM2903WYDT	STMICRO	KIA393F
BA17808FP	ROHM	KIA7808AF	KA431AZTA	ONSEMI	KIA431A	LM2904A-SR	3PEAK	KIA2904F
BA17809CP	ROHM	KIA7809API	KA431SLMF2	ONSEMI	KIA431BM	LM2904AVQDRQ1	TI	KIA2904F
BA17812CP	ROHM	KIA7812API	KA78L05	ONSEMI	KIA78S05P/KIA78L05F	LM2904BAQDRQ1	TI	KIA358F
BA17815CP	ROHM	KIA7815API	L7805CDT-TR	STMICRO	KIA7815AF	LM2904D	TI	KIA358F
BA2901F	ROHM	KIA339F	L78L05ABU	STMICRO	KIA78L05F	LM2904DG	ONSEMI	KIA2904F
BA2901SF	ROHM	KIA339F	L78L12CZ	STMICRO	KIA78S12P	LM2904DR	TI	KIA2904F
BA2902F	ROHM	KIA324F	L78M05CDT-TR	STMICRO	KIA78M05F	LM2904DR2G	ONSEMI	KIA2904F
BA2902SF	ROHM	KIA324F	L78M05CDT-TR	STMICRO	KIA78M05F	LM2904DT	STMICRO	KIA2904F
BA2903F	ROHM	KIA393F	L78M10ABDT-TR	STMICRO	KIA78M05F	LM2904F	ROHM	KIA2904F
BA2903SF	ROHM	KIA393F	L78M12CDT-TR	STMICRO	KIA78M12F	LM2904FJ	ROHM	KIA2904F
BA2904F	ROHM	KIA2904F	L78M15CDT-TR	STMICRO	KIA78M15F	LM2904M	TI	KIA2904F

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
LM2904QDRG4Q1	TI	KIA2904F	LR78L05A	LRC	KIA78L05F	NJM2845DL1-05	NJRC	KIA78D05AF
LM2904S	DIODES	KIA358F	LT1469CS8#PBF	ANALOG DEVICES	KIA358F	NJM2845DL1-33	NJRC	KIA78D33AF
LM2904WYDT	STMICRO	KIA358F	LT1469IS8#PBF	ANALOG DEVICES	KIA358F	NJM2901CG	NJRC	KIA339F
LM2904YDT	STMICRO	KIA358F	MC33063ADR2G	ONSEMI	KIA34063AF	NJM2901N	NJRC	KIA339P
LM293ADR	TI	KIA393F	MC33063AQDRQ1	TI	KIA34063AF	NJM2902CG	NJRC	KIA324F
LM293DT	STMICRO	KIA393F	MC33072DR2G	ONSEMI	KIA358F	NJM2902N	NISSHINBO	KIA324P
LM293P	TI	KIA393P	MC33174VDR2G	ONSEMI	KIA324F	NJM2903CG	NJRC	KIA393F
LM2940T-5.0	TI	KIA78D05PI	MC33274ADR2G	ONSEMI	KIA324F	NJM2903CG	NISSHINBO	KIA393F
LM321	ONSEMI	KIA75S358F	MC34063AG-S08-R	UTC	KIA34063AF	NJM2903D	NISSHINBO	KIA393P
LM321MF/NOPB	TI	KIA75S358F	MC34072ADR2G	ONSEMI	KIA358F	NJM2903E	NJRC	KIA393F
LM321MFX	TI	KIA75S358F	MC34072G-S08-R	UTC	KIA358F	NJM2904CG	NJRC	KIA358F
LM321SN3T1G	TI	KIA75S358F	MC7805BDTRKG	ONSEMI	KIA7805AF	NJM2904CG	NISSHINBO	KIA2904F
LM324DRG4	TI	KIA324F	MC7815CD2TR4G	ONSEMI	KIA7815AF	NJM2904D	NJRC	KIA358P
LM324DT	STMICRO	KIA324F	MC78M05ACDTRKG	ONSEMI	KIA78M05F	NJM2904D	NISSHINBO	KIA358P
LM324G-S14-R	UTC	KIA324F	MC78M05BDTRKG	ONSEMI	KIA78M05F	NJM324CG	NJRC	KIA324F
LM339D	TI	KIA339F	MC78M12BDTRKG	ONSEMI	KIA78M12F	NJM3472G	NJRC	KIA358F
LM339DG	ONSEMI	KIA339F	MC78M12CDTRKG	ONSEMI	KIA78M12F	NJM358CG	NJRC	KIA358F
LM339DRG3	TI	KIA339F	MC78M15BDT	ONSEMI	KIA78M15F	NJM393CG	NJRC	KIA393F
LM339F	ROHM	KIA339F	MC78M15BDTRKG	ONSEMI	KIA78M15F	NJM431SU	NJRC	KIA431F
LM358	STMICRO	KIA358F	MC7915CD2TR4G	ONSEMI	KIA7915F	NJM431U	NJRC	KIA431AF
LM358A	STMICRO	KIA358F	MC79M15BDT	ONSEMI	KIA7905F	NJM4556AD	NISSHINBO	KIA4558P
LM358ADT	STMICRO	KIA358F	MCP111T-300E	MICROCHIP	KIC7530M	NJM4558CG	NISSHINBO	KIA4558F
LM358D	STMICRO	KIA358F	MM1431ATT	MITSUMI	KIA431A	NJM4558D	NISSHINBO	KIA4558P
LM358DR	TI	KIA358F	MMTL431A	SEMTECH	KIA431BCM	NJM4580CG	NJRC	KIA4558F
LM358DR2G	ONSEMI	KIA358F	NCP431ACSNT1G	ONSEMI	KIA431AM	NJM5532CG	NJRC	KIA4558F
LM358DT	STMICRO	KIA358F	NCV2903DR2G	ONSEMI	KIA393F	NJM7805DL1A	NJRC	KIA7805AF
LM358G-D08-T	UTC	KIA358P	NCV2904DR2G	ONSEMI	KIA358F	NJM7805FA	NJRC	KIA7805API
LM393A	STMICRO	KIA393F	NCV303LSN30T1G	ONSEMI	KIC7630T5	NJM7805SDL1	NJRC	KIA7805AF
LM393DR	TI	KIA393F	NCV78M08BDTRKG	ONSEMI	KIA78M08F	NJM7808FA	NJRC	KIA7808API
LM393DRG3	TI	KIA393F	NJM12903D	NISSHINBO	KIA393P	NJM7808SDL1	NJRC	KIA7808AF
LM393DT	STMICRO	KIA393F	NJM12903E	NISSHINBO	KIA393F	NJM7809FA	NJRC	KIA7809API
LM393F	ROHM	KIA393F	NJM12904E	NISSHINBO	KIA2904F	NJM7812FA	NJRC	KIA7812API
LM393G-S08-R	UTC	KIA393F	NJM2068D	NJRC	KIA4558P	NJM7815FA	NJRC	KIA7815API
LM7915AG-TF3-T	UTC	KIA7915PI	NJM2113E	NISSHINBO	KIA6419F	NJM7818FA	NJRC	KIA7818API
LP2950CDT-5.0	ONSEMI	KIA78DL05F	NJM2125F	NJRC	KIA75S358F	NJM78L05SU3	NISSHINBO	KIA78L05F
LP2981-33DBVR	TI	KIC3222T33	NJM2374AD	NISSHINBO	KIA34063A	NJM78L05UA	NJRC	KIA78L05F
LP2985AIM5-3.3	TI	KIC3222T33	NJM2374AE	NISSHINBO	KIA34063AF	NJM78L10UA	NJRC	KIA78L10F
LP339MX	TI	KIA339F	NJM2388F33	NJRC	KIA78R33PI	NJM78L12SU3	NJRC	KIA78L12F
LP3809-263B3F	LPS	KIC73D263M2	NJM2389F	NJRC	KIA78R00PI	NJM78L15UA	NJRC	KIA78L15F
LP5907QMF3-3.3Q1	TI	KIC3233T5-33	NJM2392D	NISSHINBO	KIA34063A	NJM78M05DL1A	NJRC	KIA78M05F
LR431APLT1G	LRC	KIA431BM	NJM2392E	NISSHINBO	KIA34063AF	NJM78M05FA	NJRC	KIA78M05PI
LR431APTLT1G	LRC	KIA431BCM	NJM2393D	NISSHINBO	KIA34063A	NJM78M05FA	NISSHINBO	KIA78M05PI

Type No.	Maker	KEC	Type No.	Maker	KEC	Type No.	Maker	KEC
NJM78M05SDL1	NJRC	KIA78M05F	TL331BIDBVR	TI	KIA75S393F	UA79M08CKVURG3	TI	KIA7908F
NJM78M12DL1A	NJRC	KIA78M12F	TL331KDBVR	TI	KIA75S393F	ULN2003	STMICRO	KID65003AF/AP
NJM78M12FA	NJRC	KIA78M12PI	TL331QDBVRQ1	TI	KIA75S393F	ULN2003A	TI	KID65003AF
NJM78M15DL1A	NJRC	KIA78M15F	TL3472ID	TI	KIA358F	ULN2003AD	TI	KID65003AF
NJM78M15FA	NJRC	KIA78M15PI	TL431ACZ	STMICRO	KIA431A	ULN2003ADR	TI	KID65003AF
NJM78M18FA	NJRC	KIA7818API	TL431AFDT/8R	NEXPERIA	KIA431AM	ULN2003ADRG4	TI	KID65003AF
NJM78MxxFA	NISSHINBO	KIA78M**PI	TL431AIDBZR	TI	KIA431AM	ULN2003AIN	TI	KID65003AP
NJM78xxFA	NISSHINBO	KIA78**API	TL431AILPME3	TI	KIA431A	ULN2003AN	TI	KID65003AP
NJM7906FA	NJRC	KIA7906PI	TL431AILPR	TI	KIA431A	ULN2003ANSR	TI	KID65003AF
NJM8068G-TE2	NJRC	KIA4558F	TL431ATA	HTC	KIA431A	ULN2003AS16	DIODES	KID65003AF
NJM8080G	NJRC	KIA4558F	TL431BIDBZR	TI	KIA431BCM	ULN2003D1013TR	STMICRO	KID65003AF
NJM8087E	NJRC	KIA358F	TL431BIPK	TI	KIA431BF	ULN2003G-S16	UTC	KID65003AF
NJM842G	NJRC	KIA358F	TL431BQDBZR	TI	KIA431BM	ULN2003L	TI	KID65003AF
NJU7700F27	NJRC	KIC7527T5	TL431BQDBZRQ1	TI	KIA431BM	ULN2003L-S16-R	UTC	KID65003AF
NJW4104DL1-05B	NJRC	KIA78DL05F	TL431FDT-Q	NEXPERIA	KIA431AM	ULN2004ADR	TI	KID65004AF
NJW4181U3-05B	NJRC	KIA78L05F	TL431G-AE2-R	UTC	KIA431BCM	ULN2004AIDR	TI	KID65004AF
OPA237NA	TI	KIA75S358F	TL431G-AE3-R	UTC	KIA431BCM	ULN2004D1013TR	STMICRO	KID65004AF
PST600D	MITSUMI	KIA7042AP	TL431IDBZTG4	TI	KIA431BM	ULQ2003ADR	TI	KID65003AF
R3111N271A-TR-FE	NISSHINBO	KIC7527T5	TL431IPK	TI	KIA431AF	ULQ2003D1013TRY	STMICRO	KID65003AF
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SCV431BSN1T1G	ONSEMI	KIA2431AP	TL432AQDBZRQ1	TI	KIA431ACM	UPC277G2	RENESAS	KIA393F
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KF5N40D	MOSFET	114	KG175N60KDB	IGBT	124	KIA7019AF	IC	131	KIA7812AF	IC	136
KF5N40F	MOSFET	114	KG175N65KDF	IGBT	124	KIA7019AP	IC	131	KIA7812API	IC	136
KF5N50DZ	MOSFET	114	KG175N65KDFA	IGBT	124	KIA7019AT	IC	131	KIA7815AF	IC	136
KF5N50FZA	MOSFET	114	KG115N60FDA	IGBT	124	KIA7021AF	IC	131	KIA7815API	IC	136
KF5N60D	MOSFET	115	KIA2431AP	IC	134	KIA7021AP	IC	131	KIA7818AF	IC	136
KF5N60F	MOSFET	115	KIA2431AS	IC	134	KIA7021AT	IC	131	KIA7818API	IC	136
KF5N65D	MOSFET	115	KIA2431P	IC	134	KIA7023AF	IC	131	KIA7820AF	IC	136
KF5N65F	MOSFET	115	KIA2431S	IC	134	KIA7023AP	IC	131	KIA7820API	IC	136
KF6N60D	MOSFET	115	KIA278R00PI	IC	140	KIA7023AT	IC	131	KIA7824AF	IC	136
KF6N60F	MOSFET	115	KIA278R05PI	IC	140	KIA7025AF	IC	131	KIA7824API	IC	136
KF6N70F	MOSFET	115	KIA278R06PI	IC	140	KIA7025AP	IC	131	KIA78D05AF	IC	139
KF7N50D	MOSFET	114	KIA278R08PI	IC	140	KIA7025AT	IC	131	KIA78D05API	IC	139
KF7N50F	MOSFET	114	KIA278R09PI	IC	140	KIA7027AF	IC	131	KIA78D15AF	IC	139
KF7N60F	MOSFET	115	KIA278R10PI	IC	140	KIA7027AP	IC	131	KIA78D15API	IC	139
KF7N65F	MOSFET	115	KIA278R12PI	IC	140	KIA7027AT	IC	131	KIA78D18AF	IC	139
KF7N80F	MOSFET	115	KIA278R15PI	IC	140	KIA7029AF	IC	131	KIA78D18API	IC	139
KF8N60F	MOSFET	115	KIA2904F	IC	130	KIA7029AP	IC	131	KIA78D20AF	IC	139
KF9N25D	MOSFET	114	KIA324F	IC	130	KIA7029AT	IC	131	KIA78D20API	IC	139
KF9N25F	MOSFET	114	KIA324P	IC	130	KIA7031AF	IC	131	KIA78D25AF	IC	139
KF9N40D	MOSFET	114	KIA339F	IC	130	KIA7031AP	IC	131	KIA78D25API	IC	139
KF9N40F	MOSFET	114	KIA339P	IC	130	KIA7031AT	IC	131	KIA78D30AF	IC	139
KF9N50F	MOSFET	114	KIA34063A	IC	144	KIA7032AF	IC	131	KIA78D30API	IC	139
KG10B65KDN5	IGBT	125	KIA34063AF	IC	144	KIA7032AP	IC	131	KIA78D33AF	IC	139
KG10N65DDN5	IGBT	125	KIA358F	IC	130	KIA7032AT	IC	131	KIA78D33API	IC	139
KG10N65FDN5	IGBT	125	KIA358P	IC	130	KIA7033AF	IC	131	KIA78D35AF	IC	139
KG15N120KD4	IGBT	124	KIA378R00PI	IC	141	KIA7033AP	IC	131	KIA78D35API	IC	139
KG15N120KDN5	IGBT	125	KIA378R05PI	IC	141	KIA7033AT	IC	131	KIA78DL05F	IC	139
KG15N65FDN5	IGBT	125	KIA378R06PI	IC	141	KIA7034AF	IC	131	KIA78DL05PI	IC	139
KG20N65FDN5	IGBT	125	KIA378R08PI	IC	141	KIA7034AP	IC	131	KIA78DL06F	IC	139
KG20N65MSN5	IGBT	125	KIA378R09PI	IC	141	KIA7034AT	IC	131	KIA78DL06PI	IC	139
KG25N120KD4	IGBT	124	KIA378R10PI	IC	141	KIA7035AF	IC	131	KIA78DL08F	IC	139
KG25N120KDN5	IGBT	125	KIA378R12PI	IC	141	KIA7035AP	IC	131	KIA78DL08PI	IC	139
KG40N120KD4	IGBT	124	KIA378R15PI	IC	141	KIA7035AT	IC	131	KIA78DL09F	IC	139
KG40N120KDN5	IGBT	125	KIA378R25PI	IC	141	KIA7036AF	IC	131	KIA78DL09PI	IC	139
KG40N65FDN5	IGBT	125	KIA378R33PI	IC	141	KIA7036AP	IC	131	KIA78DL10F	IC	139
KG40N65KDN5	IGBT	125	KIA378R35PI	IC	141	KIA7036AT	IC	131	KIA78DL10PI	IC	139
KG60N65KDN5	IGBT	125	KIA393F	IC	130	KIA7039AF	IC	131	KIA78DL12F	IC	139
KG80N65KDN5	IGBT	125	KIA393P	IC	130	KIA7039AP	IC	131	KIA78DL12PI	IC	139
KG10N65DDA	IGBT	124	KIA431A	IC	134	KIA7039AT	IC	131	KIA78DL15F	IC	139
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KRC408E	BJT	34	KRC664E+	BJT	36	KRC857U+	BJT	40	KTA1274	BJT	18
KRC408V	BJT	34	KRC664U+	BJT	39	KRC858E+	BJT	38	KTA1275	BJT	18
KRC410	BJT	35	KRC666E+	BJT	36	KRC858U+	BJT	40	KTA1277	BJT	18
KRC410E	BJT	34	KRC666U+	BJT	39	KRC860E+	BJT	38	KTA1281	BJT	27
KRC410V	BJT	34	KRC667E+	BJT	36	KRC860U	BJT	40	KTA1282	BJT	17
KRC411+	BJT	35	KRC667U+	BJT	39	KRC861E	BJT	38	KTA1298	BJT	14
KRC411E	BJT	34	KRC668E+	BJT	36	KRC861U+	BJT	40	KTA1360	BJT	19
KRC411V	BJT	34	KRC668U+	BJT	39	KRC863E+	BJT	38	KTA1381	BJT	19
KRC413+	BJT	35	KRC669E+	BJT	36	KRC863U+	BJT	40	KTA1385D	BJT	26
KRC413E+	BJT	34	KRC669U+	BJT	39	KRC864E+	BJT	38	KTA1504S	BJT	14
KRC413V+	BJT	34	KRC821E+	BJT	37	KRC864U+	BJT	40	KTA1504UL	BJT	14
KRC414	BJT	35	KRC821U+	BJT	39	KRC866E+	BJT	38	KTA1505S	BJT	14
KRC414E	BJT	34	KRC822E+	BJT	37	KRC866U+	BJT	40	KTA1531T	BJT	28
KRC414V	BJT	34	KRC822U+	BJT	39	KRC867E+	BJT	38	KTA1532T	BJT	28
KRC416	BJT	35	KRC823E+	BJT	37	KRC867U+	BJT	40	KTA1532U	BJT	28
KRC416E+	BJT	34	KRC823U+	BJT	39	KRC868E+	BJT	38	KTA1535T	BJT	28
KRC416V+	BJT	34	KRC824E+	BJT	37	KRC868U	BJT	40	KTA1536T	BJT	28
KRC417	BJT	35	KRC824U+	BJT	39	KRC869E+	BJT	38	KTA1542T	BJT	28
KRC417E+	BJT	34	KRC825E+	BJT	37	KRC869U+	BJT	40	KTA1544T	BJT	28
KRC417V+	BJT	34	KRC825U+	BJT	39	KRX101E	BJT	41	KTA1545W	BJT	28
KRC418	BJT	35	KRC826E+	BJT	37	KRX101U	BJT	41	KTA1551T	BJT	28
KRC418E+	BJT	34	KRC826U+	BJT	39	KRX102E	BJT	41	KTA1552T	BJT	28
KRC418V+	BJT	34	KRC827E+	BJT	37	KRX102U	BJT	41	KTA1572	BJT	18
KRC419	BJT	35	KRC827U+	BJT	39	KRX103E	BJT	41	KTA1658	BJT	19
KRC419E+	BJT	34	KRC828U+	BJT	39	KRX103U	BJT	41	KTA1659	BJT	19
KRC419V+	BJT	34	KRC830E	BJT	37	KRX104E	BJT	41	KTA1659A	BJT	19
KRC422V+	BJT	34	KRC830U+	BJT	39	KRX201E	BJT	41	KTA1661	BJT	16
KRC452+	BJT	42	KRC831E	BJT	37	KRX201U	BJT	41	KTA1662	BJT	16
KRC453+	BJT	42	KRC831U+	BJT	39	KRX202E	BJT	41	KTA1663	BJT	16
KRC454+	BJT	42	KRC833E+	BJT	37	KRX202U	BJT	41	KTA1664	BJT	16
KRC456+	BJT	42	KRC833U+	BJT	39	KRX203E	BJT	41	KTA1666	BJT	26
KRC457+	BJT	42	KRC834E+	BJT	37	KRX203U	BJT	41	KTA1668	BJT	16
KRC642T+	BJT	42	KRC834U+	BJT	39	KRX204E	BJT	41	KTA1695A	BJT	20
KRC643T+	BJT	42	KRC836E+	BJT	37	KRX204U	BJT	41	KTA1700	BJT	19
KRC644T+	BJT	42	KRC836U+	BJT	39	KRX206E	BJT	41	KTA1704	BJT	19
KRC645T+	BJT	42	KRC837E+	BJT	37	KRX207E+	BJT	41	KTA1715	BJT	27
KRC646T+	BJT	42	KRC837U+	BJT	39	KRX207U+	BJT	41	KTA1718D	BJT	26
KRC651E+	BJT	36	KRC838E+	BJT	37	KRX208E	BJT	41	KTA1725	BJT	19
KRC651U+	BJT	39	KRC838U+	BJT	39	KRX208U+	BJT	41	KTA1807A	BJT	27
KRC652E+	BJT	36	KRC839E+	BJT	37	KRX209E	BJT	41	KTA1807D	BJT	26
KRC652U	BJT	39	KRC839U+	BJT	39	KRX209U+	BJT	41	KTA1837	BJT	19
KRC653E	BJT	36	KRC841T+	BJT	42	KRX210E	BJT	41	KTA1862D	BJT	26
KRC653U+	BJT	39	KRC842T+	BJT	42	KTA1001	BJT	26	KTA1943	BJT	20
KRC654E+	BJT	36	KRC843T+	BJT	42	KTA1023	BJT	18	KTA1943A	BJT	20
KRC654U+	BJT	39	KRC844T+	BJT	42	KTA1024	BJT	18	KTA1943N	BJT	20
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KRC655U	BJT	39	KRC846T+	BJT	42	KTA1041D	BJT	16	KTA200	BJT	17
KRC656E	BJT	36	KRC851E+	BJT	38	KTA1042D	BJT	16	KTA2012E	BJT	14
KRC656U	BJT	39	KRC851U+	BJT	40	KTA1045D	BJT	16	KTA2014	BJT	14
KRC657E	BJT	36	KRC852E	BJT	38	KTA1046	BJT	19	KTA2014E	BJT	14
KRC657U	BJT	39	KRC852U	BJT	40	KTA1049	BJT	19	KTA2014V	BJT	14
KRC658E+	BJT	36	KRC853E+	BJT	38	KTA1070	BJT	18	KTA2015	BJT	14
KRC658U+	BJT	39	KRC853U	BJT	40	KTA1225D	BJT	16	KTA501U	BJT	22
KRC660E+	BJT	36	KRC854E	BJT	38	KTA1241	BJT	26	KTA539	BJT	17

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KTA733	BJT	17	KTC3295	BJT	24	KTC945B	BJT	18	KU170P0DT2	MOSFET	112
KTA733B	BJT	17	KTC3423	BJT	19	KTD1003	BJT	24	KU210N20PS1	MOSFET	114
KTB1124	BJT	26	KTC3503	BJT	19	KTD1028	BJT	24	KU2303D	MOSFET	112
KTB1151	BJT	19	KTC3528	BJT	28	KTD1047	BJT	20	KU2307D	MOSFET	112
KTB1241	BJT	18	KTC3531T	BJT	28	KTD1302	BJT	23	KU310N10D	MOSFET	113
KTB1260	BJT	16	KTC3532T	BJT	28	KTD1304	BJT	23	KU310N10F	MOSFET	113
KTB1367	BJT	19	KTC3535T	BJT	28	KTD1347	BJT	27	KU350P06DT2	MOSFET	112
KTB1369	BJT	19	KTC3542T	BJT	28	KTD1411	BJT	25	KU3600DN10CZ	MOSFET	113
KTB1423	BJT	25	KTC3544T	BJT	28	KTD1413	BJT	25	KU3600DN10RZ	MOSFET	113
KTB1424	BJT	25	KTC3551T	BJT	28	KTD1414	BJT	25	KU3600N10RZ	MOSFET	113
KTB2630	BJT	20	KTC3552T	BJT	28	KTD1415	BJT	25	KU3600N10SZA	MOSFET	113
KTB2640	BJT	20	KTC3572	BJT	18	KTD1624	BJT	26	KU390P02SZ	MOSFET	112
KTB631K	BJT	19	KTC3573	BJT	28	KTD1630	BJT	20	KU6KDN10MZ	MOSFET	113
KTB688	BJT	20	KTC3770S	BJT	15	KTD1630G	BJT	20	KUS045N10FA	MOSFET	113
KTB764	BJT	18	KTC3770U	BJT	14	KTD1640	BJT	20	KUS086N10DA	MOSFET	113
KTB772	BJT	19	KTC3770V	BJT	14	KTD1640G	BJT	20	KUS086N10FA	MOSFET	113
KTB778	BJT	20	KTC3875S	BJT	15	KTD1691	BJT	19	KUS220N10DA	MOSFET	113
KTB817	BJT	20	KTC3876S	BJT	15	KTD1863	BJT	18	MBRD10U100CT	DIODE	86
KTB985	BJT	27	KTC3964	BJT	20	KTD1898	BJT	16	MBRD10U150	DIODE	86
KTC1003	BJT	20	KTC4072E	BJT	14	KTD1937	BJT	24	MBRD10U200CT	DIODE	86
KTC1006	BJT	18	KTC4072V	BJT	14	KTD2058	BJT	20	MBRD10U60CT	DIODE	86
KTC1008	BJT	18	KTC4075	BJT	14	KTD2059	BJT	20	MBRD20U100CT	DIODE	86
KTC1027	BJT	18	KTC4075E	BJT	14	KTD2060	BJT	20	MBRD20U150CT	DIODE	86
KTC1815	BJT	18	KTC4075V	BJT	14	KTD2061	BJT	20	MBRD20U200CT	DIODE	86
KTC200	BJT	18	KTC4076	BJT	14	KTD2066	BJT	24	MBRD20U60CT	DIODE	86
KTC2020D	BJT	16	KTC4217	BJT	19	KTD2082D	BJT	28	MBRD30U45CT	DIODE	86
KTC2022D	BJT	16	KTC4369	BJT	20	KTD2092	BJT	24	MBRD5U100D	DIODE	86
KTC2025D	BJT	16	KTC4370	BJT	20	KTD2854	BJT	25	MBRD5U150	DIODE	86
KTC2026	BJT	20	KTC4370A	BJT	20	KTD600K	BJT	19	MBRD5U200D	DIODE	86
KTC2027	BJT	20	KTC4373	BJT	16	KTD718	BJT	20	MBRD6U60CT	DIODE	86
KTC2028	BJT	20	KTC4374	BJT	16	KTD863	BJT	18	MBRF10U100CTA	DIODE	86
KTC2030D	BJT	16	KTC4375	BJT	16	KTD882	BJT	19	MBRF10U150CTA	DIODE	86
KTC2036	BJT	20	KTC4376	BJT	16	KTD998	BJT	20	MBRF10U200	DIODE	86
KTC2800	BJT	19	KTC4378	BJT	16	KJ6131E	MOSFET	111	MBRF10U200CTA	DIODE	86
KTC2803	BJT	19	KTC4379	BJT	26	KJ6131V	MOSFET	111	MBRF10U45CTA	DIODE	86
KTC2814	BJT	27	KTC4380	BJT	16	KTK491S	BJT	29	MBRF10U60CTA	DIODE	86
KTC2815D	BJT	26	KTC4468A	BJT	20	KTK491V	BJT	29	MBRF15U45CTA	DIODE	86
KTC2825D	BJT	16	KTC4793	BJT	20	KTK5132E	MOSFET	111	MBRF20U100CTA	DIODE	86
KTC2874	BJT	23	KTC5103D	BJT	26	KTK5132S	MOSFET	111	MBRF20U150CTA	DIODE	86
KTC2875	BJT	23	KTC5200	BJT	20	KTK5132U	MOSFET	111	MBRF20U200	DIODE	86
KTC2875AS	BJT	23	KTC5200A	BJT	20	KTK5132V	MOSFET	111	MBRF20U200CTA	DIODE	86
KTC2983D	BJT	16	KTC5200N	BJT	20	KTK7132E	MOSFET	111	MBRF20U45CTA	DIODE	86
KTC3003	BJT	27	KTC5242A	BJT	20	KTN2222A	BJT	27	MBRF20U60CTA	DIODE	86
KTC3072D	BJT	16	KTC601E	BJT	21	KTN2222AS	BJT	26	MBRF20U80CTA	DIODE	86
KTC3112	BJT	24	KTC801E	BJT	21	KTN2222AU	BJT	26	MBRF30U100CTA	DIODE	86
KTC3114	BJT	20	KTC801U	BJT	22	KTN2907A	BJT	27	MBRF30U45CTA	DIODE	86
KTC3198	BJT	18	KTC802E	BJT	21	KTN2907AS	BJT	26	MBRF30U60CTA	DIODE	86
KTC3202	BJT	17	KTC8050S	BJT	15	KTN2907AU	BJT	26	MJD112	BJT	25
KTC3203	BJT	17	KTC811E	BJT	21	KTX101E	BJT	21	MJE13003	BJT	27
KTC3205	BJT	18	KTC811U	BJT	22	KTX101U	BJT	22	MJE13005DF	BJT	27
KTC3206	BJT	18	KTC812E	BJT	21	KTX111T	BJT	22	MJE13007F	BJT	27
KTC3207	BJT	18	KTC812T	BJT	23	KTX213U	BJT	30	MMBTA05	BJT	15
KTC3207T	BJT	15	KTC812U	BJT	22	KTX304S	BJT	30	MMBTA06	BJT	15
KTC3209	BJT	27	KTC815	BJT	18	KTX404S	BJT	30	MMBTA13	BJT	25
KTC3226	BJT	18	KTC8550S	BJT	14	KTX711T	BJT	30	MMBTA42	BJT	15
KTC3227	BJT	18	KTC9012S	BJT	14	KTX811T	BJT	30	MMBTA44	BJT	15
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MMBTA63	BJT	25	PG24EBUSC	DIODE	79	SMAB16	DIODE	85	SMFZ30V	DIODE	72
MMBTA92	BJT	15	PG24FAS23	DIODE	81	SMAB210	DIODE	85	SMFZ33V	DIODE	72
MPS651	BJT	18	PG24FBTS6	DIODE	81	SMAB33	DIODE	85	SMFZ36V	DIODE	72
MPS751	BJT	17	PG24GS1610D2	DIODE	78	SMAB34	DIODE	85	SMFZ4.3V	DIODE	72
MPS8050S	BJT	15	PG24GSUSC	DIODE	79	SMAB36	DIODE	85	SMFZ4.7V	DIODE	72
MPS8550S	BJT	14	PG24LSSMAF	DIODE	83	SMAFAB54J	DIODE	85	SMFZ5.1V	DIODE	72
MPSA06	BJT	18	PG24LSSMB	DIODE	83	SMAFB24	DIODE	85	SMFZ5.6V	DIODE	72
MPSA13	BJT	25	PG24MSSMC	DIODE	83	SMAFB26	DIODE	85	SMFZ6.2V	DIODE	72
MPSA42	BJT	18	PG26GS1610D2	DIODE	78	SMAFB310	DIODE	85	SMFZ6.8V	DIODE	72
MPSA44	BJT	18	PG33DSTFC	DIODE	79	SMAFB34	DIODE	85	SMFZ7.5V	DIODE	72
MPSA92	BJT	45	PG36DSESC	DIODE	79	SMAFB36	DIODE	85	SMFZ8.2V	DIODE	72
MPSA94	BJT	17	PG36DSUL2	DIODE	78	SMAZ10V	DIODE	72	SMFZ9.1V	DIODE	72
PD03TCBEL2D	DIODE	82	PG36FSS23	DIODE	81	SMAZ11V	DIODE	72	TIP32CF	BJT	19
PD03TV3810D9	DIODE	82	PG36FSUSC	DIODE	79	SMAZ12V	DIODE	72	TIP35C	BJT	20
PD05TCBEL2D	DIODE	82	PG36JSSMAF	DIODE	83	SMAZ13V	DIODE	72	TIP36C	BJT	20
PD05TV5515D14	DIODE	82	PG36LSSMB	DIODE	83	SMAZ15V	DIODE	72	TIP41CF	BJT	20
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PG03HSUL2	DIODE	78	PG48FSUSC	DIODE	79	SMAZ18V	DIODE	72	TMBRD10100CT	DIODE	87
PG05BAUSM	DIODE	81	PG712FBSS23	DIODE	81	SMAZ20V	DIODE	72	TMBRD20100CT	DIODE	87
PG05BSESC	DIODE	79	PS03CBEL2A	DIODE	78	SMAZ22V	DIODE	72	TMBRD20100D	DIODE	87
PG05DBEL2A	DIODE	78	PS03CBUL2	DIODE	78	SMAZ24V	DIODE	72	TMBRD20150D	DIODE	87
PG05DBTFC	DIODE	79	PS03PSUL2	DIODE	78	SMAZ27V	DIODE	72	TMBRD30100CT	DIODE	87
PG05EAESM	DIODE	81	PS03TBUL2	DIODE	82	SMAZ30V	DIODE	72	TMBRD30150CTA	DIODE	87
PG05FBESC	DIODE	79	PS03TSEL2A	DIODE	82	SMAZ33V	DIODE	72	TMBRF10100CT	DIODE	87
PG05FSESC	DIODE	79	PS03VBEL2D	DIODE	82	SMAZ36V	DIODE	72	TMBRF20100CT	DIODE	87
PG05FSTFC	DIODE	79	PS03VBUL2	DIODE	82	SMAZ4.3V	DIODE	72	TMBRF20150CTA	DIODE	87
PG05FSUL2	DIODE	78	PS05CBEL2A	DIODE	78	SMAZ4.7V	DIODE	72	TMBRF20200CT	DIODE	87
PG05GBUSC	DIODE	79	PS05CBESC	DIODE	79	SMAZ5.1V	DIODE	72	TMBRF20200CTA	DIODE	87
PG05GBUSV	DIODE	81	PS05CBUL2	DIODE	78	SMAZ5.6V	DIODE	72	TMBRF30100CT	DIODE	87
PG05GSUL2	DIODE	78	PS05DBESC	DIODE	79	SMAZ6.2V	DIODE	72	TMBRF30150CTA	DIODE	87
PG05GXTE6	DIODE	81	PS05DBTFC	DIODE	79	SMAZ6.8V	DIODE	72	TMBRF40100CT	DIODE	87
PG05HAS23	DIODE	81	PS05DBUL2	DIODE	78	SMAZ7.5V	DIODE	72	TMBRF40120CT	DIODE	87
PG05HSUL2	DIODE	78	PS05SVU10	DIODE	82	SMAZ8.2V	DIODE	72	TMBRF40150CT	DIODE	87
PG05HSUSC	DIODE	79	PS05TBEL2D	DIODE	82	SMAZ9.1V	DIODE	72	U10A6CDC	DIODE	88
PG05KS1610D2	DIODE	78	PS05TBUL2	DIODE	82	SMBRF08A65BIS3	DIODE	89	U10A6CI	DIODE	88
PG07DBUL2	DIODE	78	PS05TCBUL2	DIODE	82	SMBRF10A12CIS3	DIODE	89	U10A6CIC	DIODE	88
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PG09HS1610D2	DIODE	78	PS05TVUL9	DIODE	82	SMBRF15A12CIS3	DIODE	89	U20A6CIC	DIODE	88
PG10HSUSF	DIODE	80	PS05VBEL2D	DIODE	82	SMBRK20A12CIS3	DIODE	89	U5A6CD	DIODE	88
PG12DBUL2	DIODE	78	PS05VBUL2	DIODE	82	SMBRK20A65BCS3	DIODE	89	U5A6CI	DIODE	88
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PG15FSUSC	DIODE	79	RL251G	DIODE	92	SMFZ11V	DIODE	72	USFZ13V+	DIODE	71
PG15GSUSC	DIODE	79	RL252G	DIODE	92	SMFZ12V	DIODE	72	USFZ15V	DIODE	71
PG15HS1610D2	DIODE	78	RL253G	DIODE	92	SMFZ13V	DIODE	72	USFZ16V+	DIODE	71
PG18HS1610D2	DIODE	78	RL254G	DIODE	92	SMFZ15V	DIODE	72	USFZ18V	DIODE	71
PG20GS1610D2	DIODE	78	RL255G	DIODE	92	SMFZ16V	DIODE	72	USFZ20V	DIODE	71
PG22GS1610D2	DIODE	78	RL256G	DIODE	92	SMFZ18V	DIODE	72	USFZ22V+	DIODE	71
PG24DAS23	DIODE	81	RL257G	DIODE	92	SMFZ20V	DIODE	72	USFZ24V	DIODE	71
PG24DBUL2	DIODE	78	SMAB110	DIODE	85	SMFZ22V	DIODE	72	USFZ27V+	DIODE	71

PACKAGE DIMENSION

Package Dimension

Leadless Devices

ELP-2	ELP-2A	ELP-2B	ELP-2D	ELP-2D(1)

ULP-2	ULP-2(1)	ULP-2(2)	ULP-2(3)	ULP-2(4)

ULP-2(5)	ULP-2(6)	ULP-3	ULP-3(1)	UDFN1010-4

DFN1610-2L	DFN1610-2L(1)	DFN22D	ULP-9	ULP-10

DFN3810	DFN5515	QFN-28

Package Dimension

■ SMD (Surface Mounted Devices)

TFSC	VSC	ESC	USC	USC(1)
USF	USCF	SOD-123	SMF	SMA
SMAF	SMB	SMC	VSM	ESM
USM	SOT-23	SOT-23-6L	SOT-23-6L(1)	TSM
SOT-89	PDFN33	PDFN33D	PDFN56	PDFN56D

Package Dimension

SOT-223	SOT-223(1)	DPAK	DPAK(1)	DPAK(3)

DPAK(4)	DPAK-5G	TESV	USV	TSV

TES6	US6	TS6	FLP-8	FLP-8(1)

eFLP-8	FLP-14	FLP-16	FLP-18	FLP-20

FLP-28(SOIC-28)

Package Dimension

DIP-16	DIP-18(1)
<p> $0.46^{+0.1}$ $1.52^{+0.1}$ 2.54 $19.3^{+0.2}$ $0.50^{+0.05}$ $3.30^{+0.3}$ $3.30^{+0.3}$ 7.62 $0.25^{+0.05}$ $0-15^\circ$ $6.45^{+0.2}$ </p>	<p> $0.46^{+0.1}$ $1.52^{+0.1}$ $2.54^{+0.2}$ $3.30^{+0.3}$ $3.30^{+0.3}$ $22.9^{+0.2}$ $7.62^{+0.2}$ $0.25^{+0.05}$ $0-10^\circ$ $8.6^{+0.2}$ </p>

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