

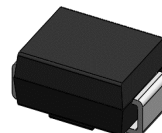
1000W, 10 - 200V Transient Voltage Suppressors

Features

- Very fast response time
- Glass passivated junction
- Moisture sensitivity: level 1, per J-STD-020
- Available in unidirectional and bidirectional
- Plastic package has underwriters Laboratory Flammability Classification 94V-0
- Halogen-free according to IEC 61249-2-21 definition
- 1000 W peak pulse power capability with a 10/1000 μ s waveform



RoHS
COMPLIANT



SMB (DO-214AA)

Applications

- SMPS
- Adapters
- Monitor

Absolute Maximum Ratings (TA=25°C unless otherwise noted)			
Parameter	Symbol	Ratings	Unit
Peak power dissipation with a 10/1000us waveform	P _{PPM}	1000	W
Peak pulse current with a 10/1000us waveform	I _{PPM}	See Next Table	A
Power dissipation, on infinite heat sink at T _L =75°C	P _D	3.75	W
Peak forward surge current, 8.3ms single half-sine wave	I _{FSM}	100	A
Typical Thermal Resistance , Junction to Ambient	R _{θJA}	85	°C/W
Typical Thermal Resistance , Junction to Case	R _{θJC}	15	°C/W
Typical Thermal Resistance , Junction to Lead	R _{θJL}	20	°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150	°C

Electrical Characteristics (TA = 25 °C unless otherwise noted)

Part Number (Uni)	Part Number (Bi)	Marking		Breakdown Voltage VBR (Volts)		Test Current IT (mA)	Stand off Voltage VWM (Volts)	Maximum reverse leakage at VWM ID (µA)	Maximum Peak Pulse Current IPPM (A)	Maximum Clamping Voltage at IPPM VC(Volts)
		UNI	BI	Min	Max					
1KSMBJ11A	1KSMBJ11CA	KKZ	KAZ	12.2	13.5	1.0	11	5.0	54.9	18.2
1KSMBJ12A	1KSMBJ12CA	KLE	KBE	13.3	14.7	1.0	12	5.0	50.3	19.9
1KSMBJ13A	1KSMBJ13CA	KLG	KBG	14.4	15.9	1.0	13	1.0	46.5	21.5
1KSMBJ14A	1KSMBJ14CA	KLK	KBK	15.6	17.2	1.0	14	1.0	43.1	23.2
1KSMBJ15A	1KSMBJ15CA	KLM	KBM	16.7	18.5	1.0	15	1.0	41.0	24.4
1KSMBJ16A	1KSMBJ16CA	KLP	KBP	17.8	19.7	1.0	16	1.0	38.5	26.0
1KSMBJ17A	1KSMBJ17CA	KLR	KBR	18.9	20.9	1.0	17	1.0	36.2	27.6
1KSMBJ18A	1KSMBJ18CA	KLT	KBT	20.0	22.1	1.0	18	1.0	34.2	29.2
1KSMBJ20A	1KSMBJ20CA	KLX	KBV	22.2	24.5	1.0	20	1.0	30.9	32.4
1KSMBJ22A	1KSMBJ22CA	KLX	KBX	24.4	26.9	1.0	22	1.0	28.2	35.5
1KSMBJ24A	1KSMBJ24CA	KLZ	KBZ	26.7	29.5	1.0	24	1.0	25.7	38.9
1KSMBJ26A	1KSMBJ26CA	KME	KCE	28.9	31.9	1.0	26	1.0	23.8	42.1
1KSMBJ28A	1KSMBJ28CA	KMG	KCG	31.1	34.4	1.0	28	1.0	22.0	45.4
1KSMBJ30A	1KSMBJ30CA	KMK	KCK	33.3	36.8	1.0	30	1.0	20.7	48.4
1KSMBJ33A	1KSMBJ33CA	KMM	KCM	36.7	40.6	1.0	33	1.0	18.8	53.3
1KSMBJ36A	1KSMBJ36CA	KMP	KCP	40.0	44.4	1.0	36	1.0	17.2	58.1
1KSMBJ40A	1KSMBJ40CA	KMR	KCR	44.4	49.1	1.0	40	1.0	15.5	64.5
1KSMBJ43A	1KSMBJ43CA	KMT	KCT	47.8	52.8	1.0	43	1.0	14.4	69.4
1KSMBJ45A	1KSMBJ45CA	KMV	KCV	50.0	55.3	1.0	45	1.0	13.8	72.7
1KSMBJ48A	1KSMBJ48CA	KMX	KCX	53.3	58.9	1.0	48	1.0	12.9	77.4
1KSMBJ51A	1KSMBJ51CA	KMZ	KCZ	56.7	62.7	1.0	51	1.0	12.1	82.4
1KSMBJ54A	1KSMBJ54CA	KNE	KDE	60.0	66.3	1.0	54	1.0	11.5	87.1
1KSMBJ58A	1KSMBJ58CA	KNG	KDG	64.4	71.2	1.0	58	1.0	10.7	93.6
1KSMBJ60A	1KSMBJ60CA	KNK	KDK	66.7	73.7	1.0	60	1.0	10.3	96.8
1KSMBJ64A	1KSMBJ64CA	KNM	KDM	71.1	78.6	1.0	64	1.0	9.7	103
1KSMBJ70A	1KSMBJ70CA	KNP	KDP	77.8	86.0	1.0	70	1.0	8.8	113
1KSMBJ75A	1KSMBJ75CA	KNR	KDR	83.3	92.1	1.0	75	1.0	8.3	121
1KSMBJ78A	1KSMBJ78CA	KNT	KDT	86.7	95.8	1.0	78	1.0	7.9	126
1KSMBJ85A	1KSMBJ85CA	KNV	KDV	94.4	104	1.0	85	1.0	7.3	137
1KSMBJ90A	1KSMBJ90CA	KNX	KDX	100	111	1.0	90	1.0	6.8	146
1KSMBJ100A	1KSMBJ100CA	KNZ	KDZ	111	123	1.0	100	1.0	6.2	162
1KSMBJ110A	1KSMBJ110CA	KPE	KFE	122	135	1.0	110	1.0	5.6	177
1KSMBJ120A	1KSMBJ120CA	KPG	KFG	133	147	1.0	120	1.0	5.2	193



1KSMBJ10A thru 1KSMBJ200CA

GOOD-ARK Electronics

Electrical Characteristics (TA = 25 °C unless otherwise noted)

Part Number (Uni)	Part Number (Bi)	Marking		Breakdown Voltage VBR (Volts)		Test Current I _T (mA)	Stand off Voltage V _{WM} (Volts)	Maximum reverse leakage at V _{WM} I _D (μA)	Maximum Peak Pulse Current I _{PPM} (A)	Maximum Clamping Voltage at I _{PPM} V _C (Volts)
		UNI	BI	Min	Max					
1KSMBJ130A	1KSMBJ130CA	KPK	KFK	144	159	1.0	130	1.0	4.8	209
1KSMBJ150A	1KSMBJ150CA	KPM	KFM	167	185	1.0	150	1.0	4.1	243
1KSMBJ160A	1KSMBJ160CA	KPP	KFP	178	197	1.0	160	1.0	3.9	259
1KSMBJ170A	1KSMBJ170CA	KPR	KFR	189	209	1.0	170	1.0	3.6	275
1KSMBJ180A	1KSMBJ180CA	KPT	KFT	201	222	1.0	180	1.0	3.4	292
1KSMBJ200A	1KSMBJ200CA	KPV	KFV	224	247	1.0	200	1.0	3.1	324

Note:

1. Mounted on copper pad area of 0.2x0.2" (5.0 x 5.0mm) to each terminal.

Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)

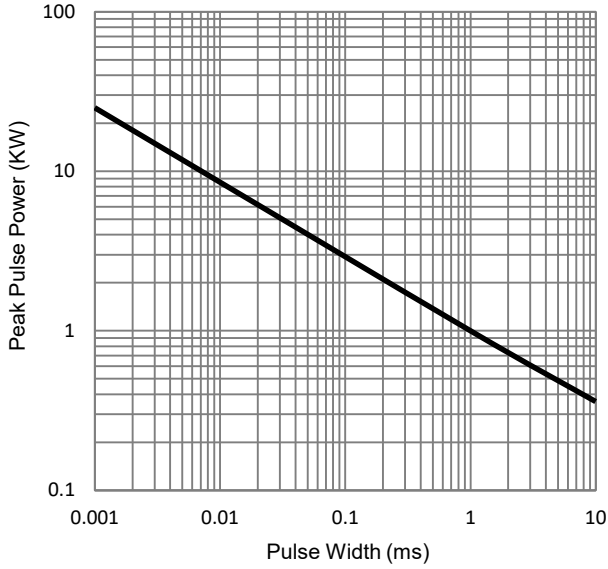


Fig.1 - Peak Pulse Power Derating Curve

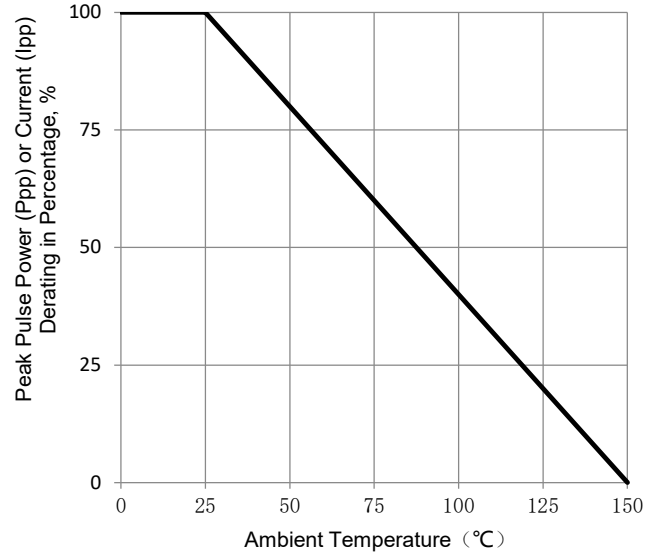


Fig.2 - Maximum Non-Repetitive Surge Current

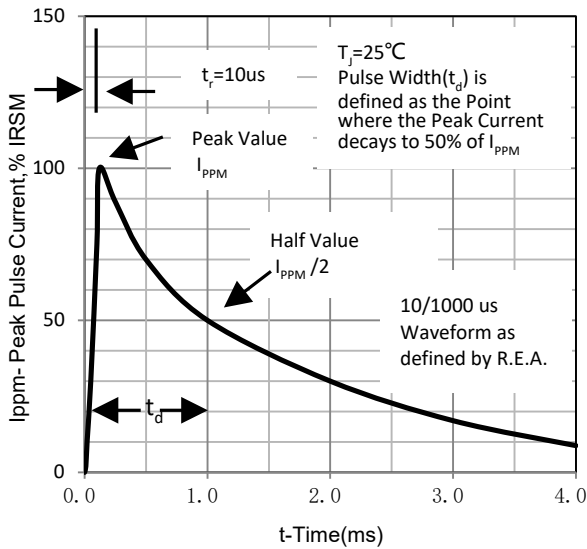


Fig.3 - Typical Forward Voltage Characteristics

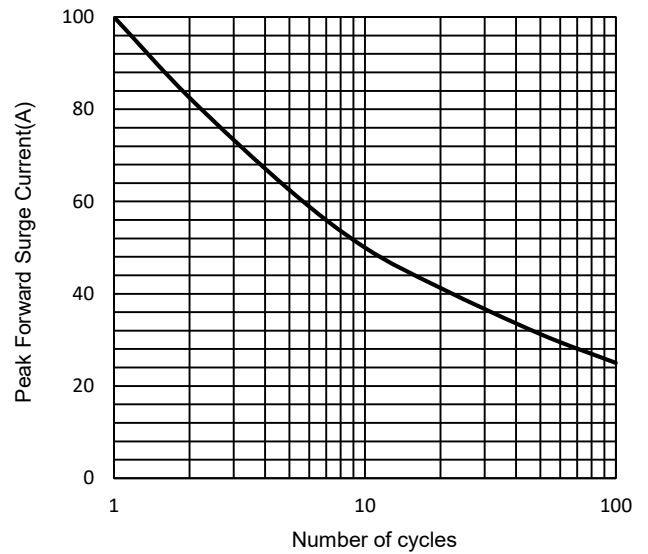
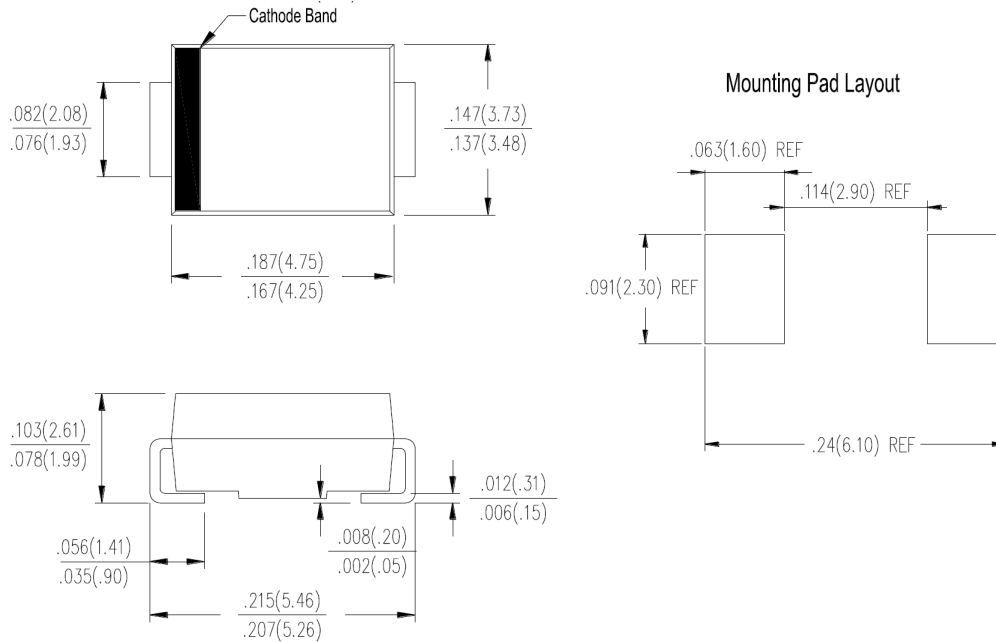


Fig.4 - Typical Reverse Current Characteristics

Package Outline Dimensions

in inches (millimeters)

SMB (DO-214AA)



Revision History

Document Version	Date of release	Description of changes
Rev.A	2021.06.15	Released Datasheet
Rev.B	2023.10.20	Modify document format



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