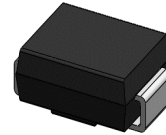


1000W, 10 - 200V Transient Voltage Suppressors

Features

- Very fast response time
- Available in unidirectional
- Glass passivated junction
- Moisture sensitivity: level 1, per J-STD-020
- 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



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)	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	Min	Max					
1KSMBJ10AS	KKXS	11.1	12.3	1.0	10	5.0	58.8	17.0
1KSMBJ11AS	KKZS	12.2	13.5	1.0	11	5.0	54.9	18.2
1KSMBJ12AS	KLES	13.3	14.7	1.0	12	5.0	50.3	19.9
1KSMBJ13AS	KLGS	14.4	15.9	1.0	13	1.0	46.5	21.5
1KSMBJ14AS	KLKS	15.6	17.2	1.0	14	1.0	43.1	23.2
1KSMBJ15AS	KLMS	16.7	18.5	1.0	15	1.0	41.0	24.4
1KSMBJ16AS	KLPS	17.8	19.7	1.0	16	1.0	38.5	26.0
1KSMBJ17AS	KLRS	18.9	20.9	1.0	17	1.0	36.2	27.6
1KSMBJ18AS	KLTS	20.0	22.1	1.0	18	1.0	34.2	29.2
1KSMBJ20AS	KLVS	22.2	24.5	1.0	20	1.0	30.9	32.4
1KSMBJ22AS	KLXS	24.4	26.9	1.0	22	1.0	28.2	35.5
1KSMBJ24AS	KLZS	26.7	29.5	1.0	24	1.0	25.7	38.9
1KSMBJ26AS	KMES	28.9	31.9	1.0	26	1.0	23.8	42.1
1KSMBJ28AS	KMGS	31.1	34.4	1.0	28	1.0	22.0	45.4
1KSMBJ30AS	KMKS	33.3	36.8	1.0	30	1.0	20.7	48.4
1KSMBJ33AS	KMMS	36.7	40.6	1.0	33	1.0	18.8	53.3
1KSMBJ36AS	KMPS	40.0	44.4	1.0	36	1.0	17.2	58.1
1KSMBJ40AS	KMRS	44.4	49.1	1.0	40	1.0	15.5	64.5
1KSMBJ43AS	KMTS	47.8	52.8	1.0	43	1.0	14.4	69.4
1KSMBJ45AS	KMVS	50.0	55.3	1.0	45	1.0	13.8	72.7
1KSMBJ48AS	KMXS	53.3	58.9	1.0	48	1.0	12.9	77.4
1KSMBJ51AS	KMZS	56.7	62.7	1.0	51	1.0	12.1	82.4
1KSMBJ54AS	KNES	60.0	66.3	1.0	54	1.0	11.5	87.1
1KSMBJ58AS	KNGS	64.4	71.2	1.0	58	1.0	10.7	93.6
1KSMBJ60AS	KNKS	66.7	73.7	1.0	60	1.0	10.3	96.8
1KSMBJ64AS	KNMS	71.1	78.6	1.0	64	1.0	9.7	103
1KSMBJ70AS	KNPS	77.8	86.0	1.0	70	1.0	8.8	113
1KSMBJ75AS	KNRS	83.3	92.1	1.0	75	1.0	8.3	121
1KSMBJ78AS	KNTS	86.7	95.8	1.0	78	1.0	7.9	126
1KSMBJ85AS	KNVS	94.4	104	1.0	85	1.0	7.3	137
1KSMBJ90AS	KNXS	100	111	1.0	90	1.0	6.8	146
1KSMBJ100AS	KNZS	111	123	1.0	100	1.0	6.2	162
1KSMBJ110AS	KPES	122	135	1.0	110	1.0	5.6	177
1KSMBJ120AS	KPGS	133	147	1.0	120	1.0	5.2	193



1KSMBJ10AS thru 1KSMBJ200AS

GOOD-ARK Electronics

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

Part Number (Uni)	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	Min	Max					
1KSMBJ130AS	KPKS	144	159	1.0	130	1.0	4.8	209
1KSMBJ150AS	KPMS	167	185	1.0	150	1.0	4.1	243
1KSMBJ160AS	KPPS	178	197	1.0	160	1.0	3.9	259
1KSMBJ170AS	KPRS	189	209	1.0	170	1.0	3.6	275
1KSMBJ180AS	KPTS	201	222	1.0	180	1.0	3.4	292
1KSMBJ200AS	KPVS	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)

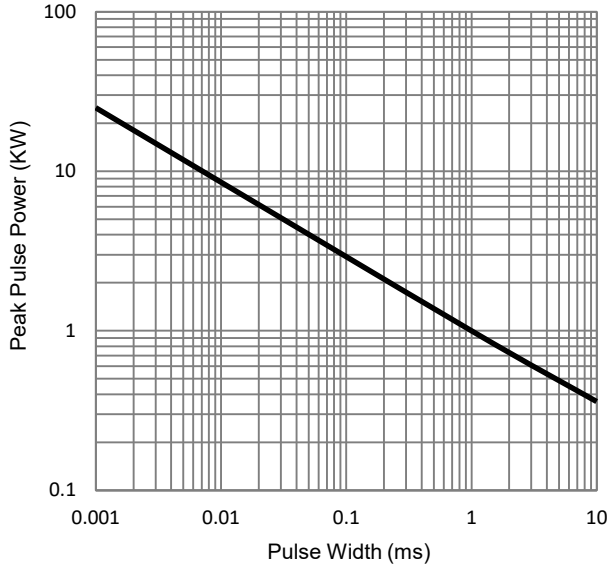


Fig.1 - Peak Pulse Power Derating Curve

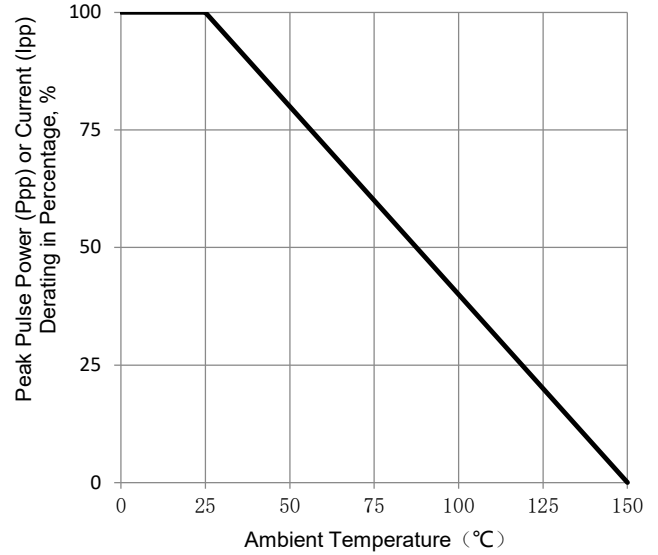


Fig.2 - Maximum Non-Repetitive Surge Current

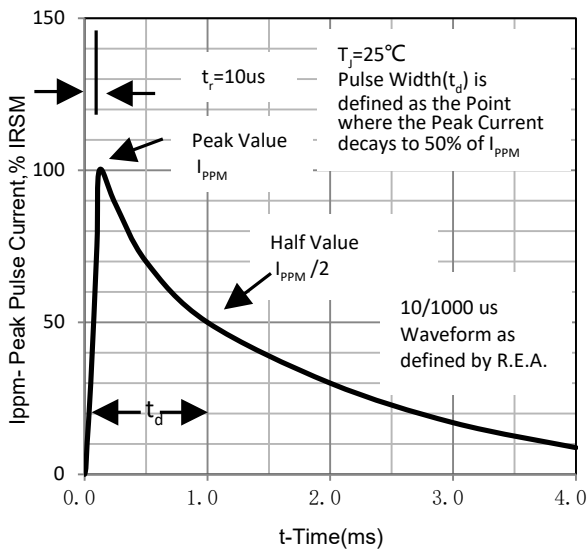


Fig.3 - Typical Forward Voltage Characteristics

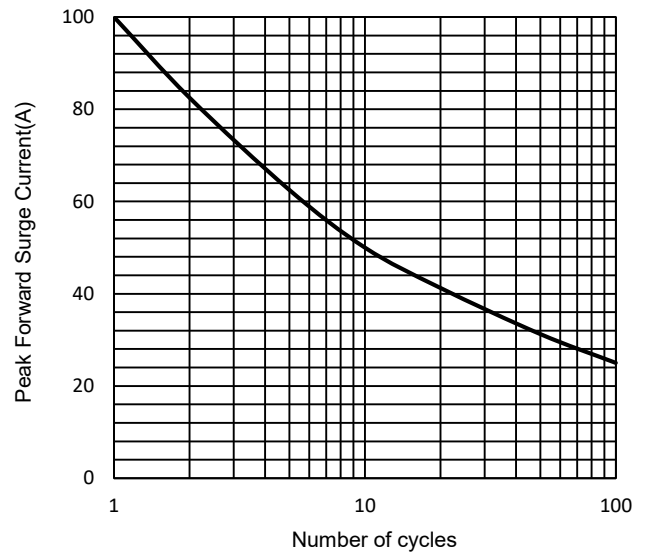
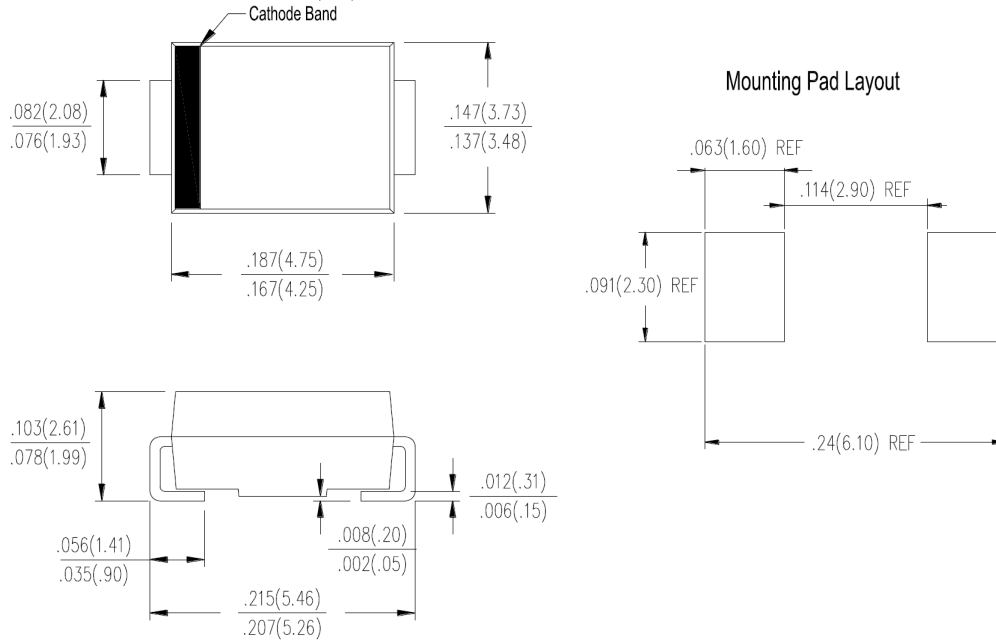


Fig.4 - Typical Reverse Current Characteristics

Package Outline Dimensions

in inches (millimeters)

SMB (DO-214AA)



Revision History

Document Version	Date of release	Description of changes
Rev.A	2023.06.15	Released Datasheet
Rev.B	2023.10.20	Modify document format
Rev.C	2024.03.08	Update product range



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