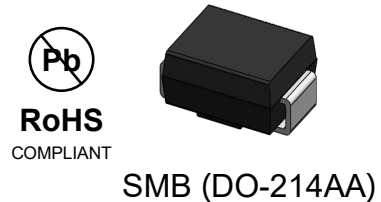


## 1000W, 10 - 33V Transient Voltage Suppressors

### 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  $\mu$ s waveform
- AEC-Q101 qualified



### Applications

- SMPS
- Adapters
- Monitor

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

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

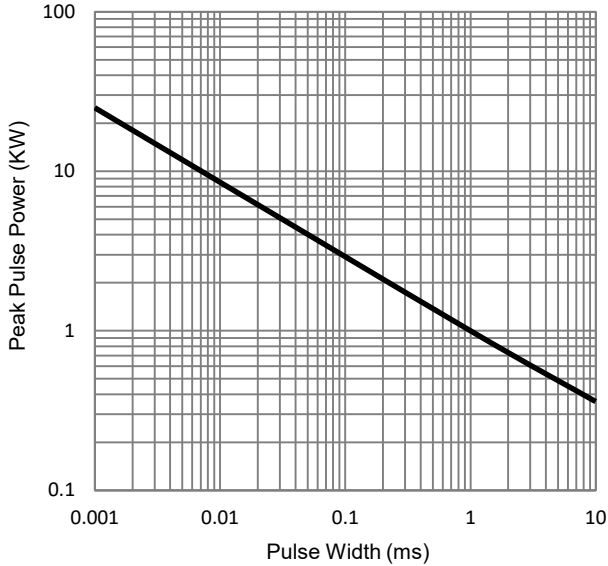
Part Number (Uni)	Part Number (Bi)	Marking		Breakdown Voltage VBR (Volts)		Test Current IT (mA)	Stand off Voltage VWM (Volts)	Maximum reverse leakage at VWM ID (µA)	Maximum Peak Pulse Current IPPM (A)	Maximum Clamping Voltage at IPPM VC(Volts)
		UNI	BI	Min	Max					
A1KSMBJ11A	A1KSMBJ11CA	AKKZ	AKAZ	12.2	13.5	1.0	11	5.0	54.9	18.2
A1KSMBJ12A	A1KSMBJ12CA	AKLE	AKBE	13.3	14.7	1.0	12	5.0	50.3	19.9
A1KSMBJ13A	A1KSMBJ13CA	AKLG	AKBG	14.4	15.9	1.0	13	1.0	46.5	21.5
A1KSMBJ14A	A1KSMBJ14CA	AKLK	AKBK	15.6	17.2	1.0	14	1.0	43.1	23.2
A1KSMBJ15A	A1KSMBJ15CA	AKLM	AKBM	16.7	18.5	1.0	15	1.0	41.0	24.4
A1KSMBJ16A	A1KSMBJ16CA	AKLP	AKBP	17.8	19.7	1.0	16	1.0	38.5	26.0
A1KSMBJ17A	A1KSMBJ17CA	AKLR	AKBR	18.9	20.9	1.0	17	1.0	36.2	27.6
A1KSMBJ18A	A1KSMBJ18CA	AKLT	AKBT	20.0	22.1	1.0	18	1.0	34.2	29.2
A1KSMBJ20A	A1KSMBJ20CA	AKLV	AKBV	22.2	24.5	1.0	20	1.0	30.9	32.4
A1KSMBJ22A	A1KSMBJ22CA	AKLX	AKBX	24.4	26.9	1.0	22	1.0	28.2	35.5
A1KSMBJ24A	A1KSMBJ24CA	AKLZ	AKBZ	26.7	29.5	1.0	24	1.0	25.7	38.9
A1KSMBJ26A	A1KSMBJ26CA	AKME	AKCE	28.9	31.9	1.0	26	1.0	23.8	42.1
A1KSMBJ28A	A1KSMBJ28CA	AKMG	AKCG	31.1	34.4	1.0	28	1.0	22.0	45.4
A1KSMBJ30A	A1KSMBJ30CA	AKMK	AKCK	33.3	36.8	1.0	30	1.0	20.7	48.4
A1KSMBJ33A	A1KSMBJ33CA	AKMM	AKCM	36.7	40.6	1.0	33	1.0	18.8	53.3

Note:

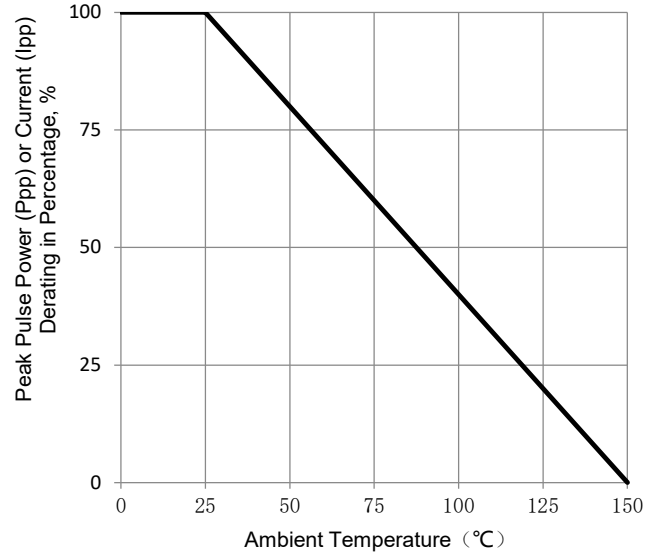
1. Mounted on copper pad area of 0.2x0.2" (5.0 x 5.0mm) to each terminal.

## Ratings and Characteristics Curves

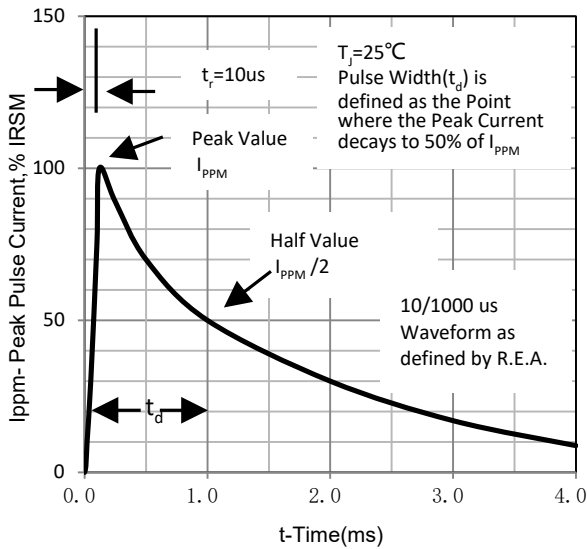
( $T_A = 25^\circ\text{C}$  unless otherwise noted)



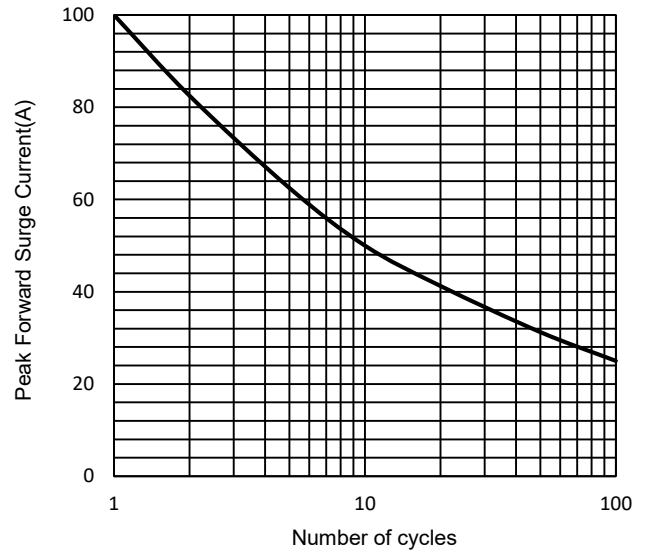
**Fig.1 - Peak Pulse Power Derating Curve**



**Fig.2 - Maximum Non-Repetitive Surge Current**



**Fig.3 - Typical Forward Voltage Characteristics**

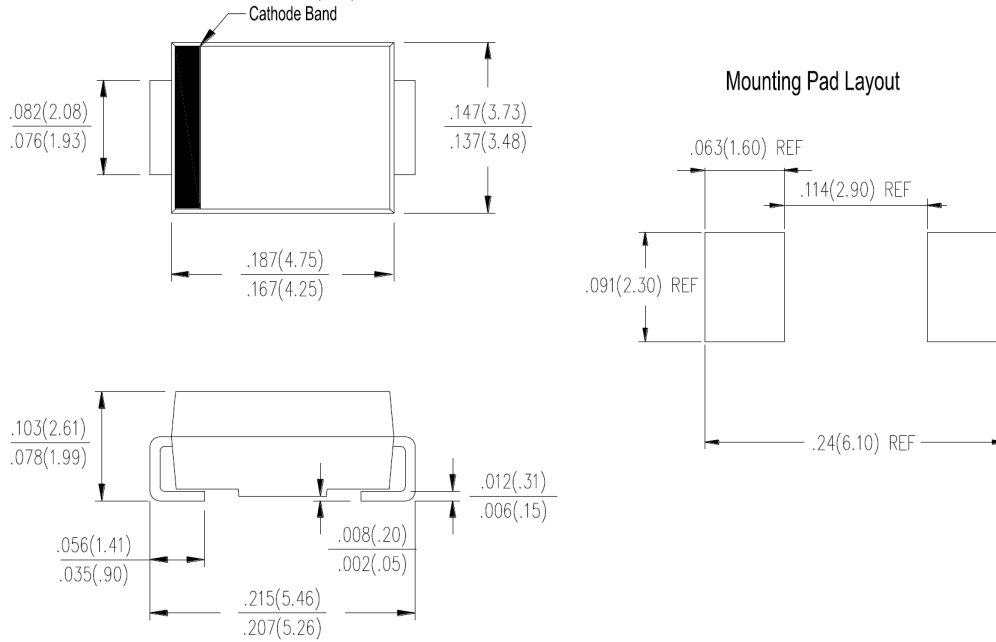


**Fig.4 - Typical Reverse Current Characteristics**

## 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	2023.10.24	Modify document format



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