

**SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR**  
**VOLTAGE - 11 TO 170 Volts**  
**5000Watts Peak Pulse Power**

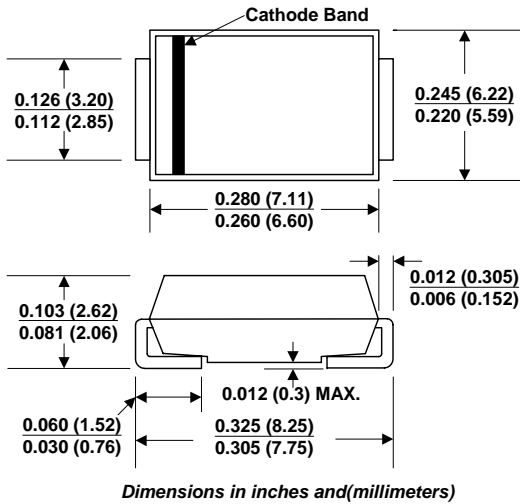
" \* " 标注为常用型号  
 " \* " Stand for commonly used models

5.0SMDJ PART NUMBER	DEVICE MARKING CODE		REVERSE STAND- OFF VOLTAGE V <sub>RWM</sub> (V)	BREAKDOWN VOLTAGE V <sub>BR</sub> (V) MIN.@I <sub>T</sub>	BREAKDOWN VOLTAGE V <sub>BR</sub> (V) MAX.@I <sub>T</sub>	TEST CURRENT I <sub>T</sub> (mA)	MAXIMUM CLAMPING VOLTAGE @I <sub>pp</sub> V <sub>c</sub> (V)	PEAK PULSE CURRENT I <sub>pp</sub> (A)	REVERSE LEAKAGE @ V <sub>RWM</sub> I <sub>R</sub> (μA)
	Uni-polar	Bi-polar							
5.0SMDJ 11A-CA	5PEN	5BEN	11.0	12.20	13.50	10	18.2	275.00	800
5.0SMDJ 12A-CA	5PEP	5BEP	12.0	13.30	14.70	10	19.9	252.00	800
5.0SMDJ 13A-CA	5PEQ	5BEQ	13.0	14.40	15.90	10	21.5	233.00	500
5.0SMDJ 14A-CA	5PER	5BER	14.0	15.60	17.20	10	23.2	216.00	200
5.0SMDJ 15A-CA	5PES	5BES	15.0	16.70	18.50	1	24.4	205.00	100
5.0SMDJ 16A-CA	5PET	5BET	16.0	17.80	19.70	1	26.0	193.00	50
5.0SMDJ 17A-CA	5PEU	5BEU	17.0	18.90	20.90	1	27.6	181.00	20
5.0SMDJ 18A-CA	5PEV	5BEV	18.0	20.00	22.10	1	29.2	172.00	10
*5.0SMDJ 20A-CA	5PEW	5BEW	20.0	22.20	24.50	1	32.4	155.00	2
5.0SMDJ 22A-CA	5PEX	5BEX	22.0	24.40	26.90	1	35.5	141.00	2
5.0SMDJ 24A-CA	5PEZ	5BEZ	24.0	26.70	29.50	1	38.9	129.00	2
*5.0SMDJ 26A-CA	5PFE	5BFE	26.0	28.90	31.90	1	42.1	119.00	2
5.0SMDJ 28A-CA	5PFG	5BFG	28.0	31.10	34.40	1	45.4	110.00	2
5.0SMDJ 30A-CA	5PFK	5BFK	30.0	33.30	36.80	1	48.4	103.00	2
5.0SMDJ 33A-CA	5PFM	5BFM	33.0	36.70	40.60	1	53.3	93.90	2
*5.0SMDJ 36A-CA	5PFP	5BFP	36.0	40.00	44.20	1	58.1	86.10	2
5.0SMDJ 40A-CA	5PFR	5BFR	40.0	44.40	49.10	1	64.5	77.60	2
5.0SMDJ 43A-CA	5PFT	5BFT	43.0	47.80	52.80	1	69.4	72.10	2
5.0SMDJ 45A-CA	5PFV	5BFV	45.0	50.00	55.30	1	72.7	68.80	2
5.0SMDJ 48A	5PFX		48.0	53.30	58.90	1	77.4	64.70	2
5.0SMDJ 51A	5PFZ		51.0	56.70	62.70	1	82.4	60.70	2
5.0SMDJ 54A	5RGE		54.0	60.00	66.30	1	87.1	57.50	2
5.0SMDJ 58A	5PGG		58.0	64.40	71.20	1	93.6	53.50	2
5.0SMDJ 60A	5PGK		60.0	66.70	73.70	1	96.8	51.70	2
5.0SMDJ 64A	5PGM		64.0	71.10	78.60	1	103.0	48.60	2
5.0SMDJ 70A	5PGP		70.0	77.80	86.00	1	113.0	44.30	2
5.0SMDJ 75A	5PGR		75.0	83.30	92.10	1	121.0	41.40	2
5.0SMDJ 78A	5PGT		78.0	86.70	95.80	1	126.0	39.70	2
5.0SMDJ 85A	5PGV		85.0	94.40	104.00	1	137.0	36.50	2
5.0SMDJ 90A	5PGX		90.0	100.00	111.00	1	146.0	34.30	2
5.0SMDJ 100A	5PGZ		100.0	111.00	123.00	1	162.0	30.90	2
5.0SMDJ 110A	5PHE		110.0	122.00	135.00	1	177.0	28.30	2
5.0SMDJ 120A	5PHG		120.0	133.00	147.00	1	193.0	26.00	2
5.0SMDJ 130A	5PHK		130.0	144.00	159.00	1	209.0	24.00	2
5.0SMDJ 150A	5PHM		150.0	167.00	185.00	1	243.0	20.60	2
5.0SMDJ 160A	5PHP		160.0	178.00	197.00	1	259.0	19.30	2
5.0SMDJ 170A	5PHR		170.0	189.00	209.00	1	275.0	18.20	2

For Bidirectional type having Vrwm of 20 volts and less,the Ir limit is double.

## SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR VOLTAGE-11 TO 170 Volts 5000 Watt Peak Pulse Power

### DO-214AB (SMC J-Bend)



Dimensions in inches and (millimeters)

### FEATURES

- ⊙ For surface mounted applications in order to optimize board space
- ⊙ Low profile package
- ⊙ Built-in strain relief
- ⊙ Glass passivated junction
- ⊙ Low inductance
- ⊙ Excellent clamping capability
- ⊙ Repetition Rate (duty cycle):0.01%
- ⊙ Fast response time: typically less than 1.0ps from 0 Volts to V(BR) for unidirectional types
- ⊙ Typical IR less than 2  $\mu$  A
- ⊙ High temperature soldering: 260°C/10 seconds at terminals
- ⊙ Plastic package has Underwriters Laboratory Flammability 94V-O
- ⊙ Pb-free plated

### MECHANICAL DATA

**Case:** JEDEC DO-214AB. Molded plastic over glass passivated junction

**Terminal:** Solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denoted positive end (cathode) except Bidirectional

**Standard Packaging:** 16mm tape (EIA STD RS-481)

**Weight:** 0.007 ounce, 0.21 gram

### MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

RATING	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation on 10/1000 $\mu$ s waveform (Note 1,2 ,FIG.1)	P <sub>PPM</sub>	Minimum 5000	Watts
Peak Pulse Current of on 10/1000 $\mu$ s waveform (Note 1,FIG.3)	I <sub>PPM</sub>	SEE TABLE 1	Amps
Peak Forward Surge Current,8.3ms Single Half Sine-Wave Superimposed on Rated Load,(JEDEC Method) (Note2, 3)	I <sub>FSM</sub>	300	Amps
Operating junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to + 150	°C

#### Notes :

- 1.Non-repetitive current pulse , per Fig. 3 and derated above T<sub>A</sub> = 25°C per Fig. 2 .
- 2.Mounted on 8.0mm x 8.0mm Copper Pads to each terminal
- 3.8.3ms single half sine-wave , or equivalent square wave, Duty cycle = 4 pulses per minutes maximum.

RATINGS AND CHARACTERISTIC CURVES

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

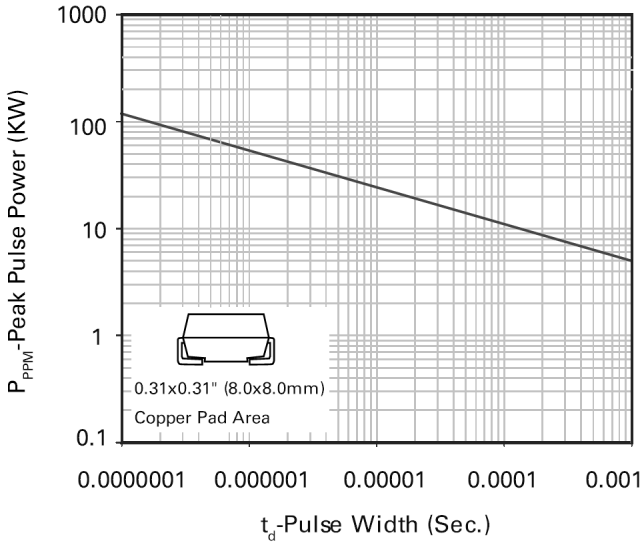


Figure 3 - Pulse Waveform

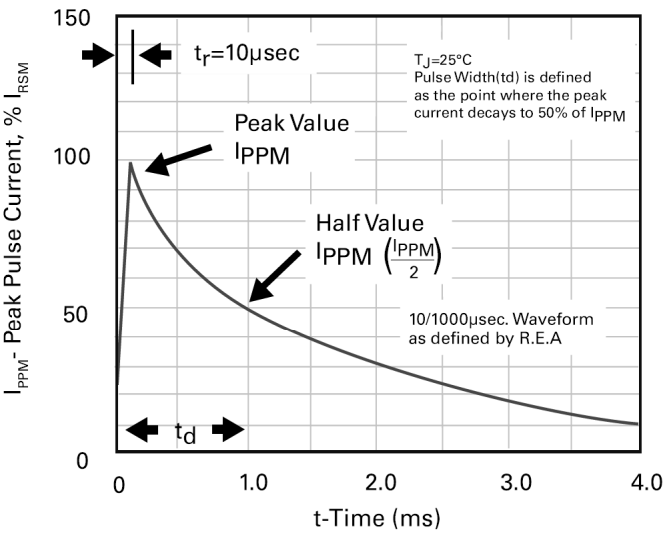


Figure 5 - Steady State Power Derating Curve

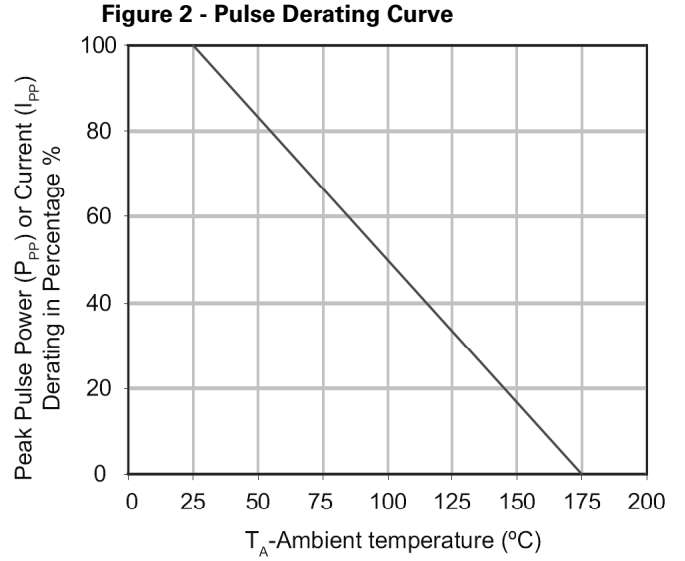
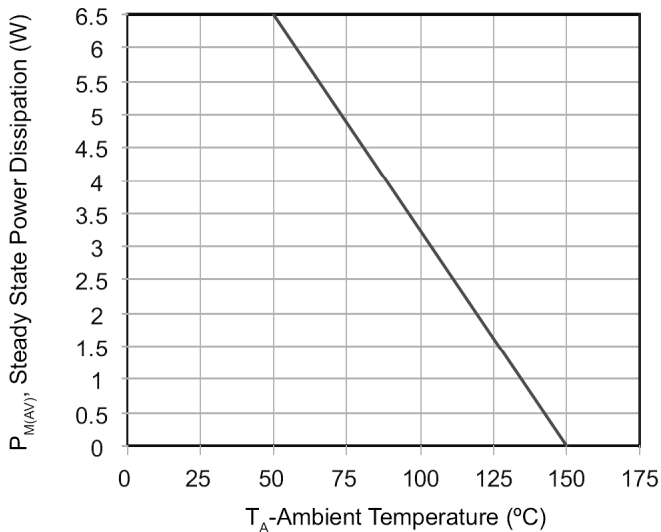


Figure 4 - Typical Junction Capacitance

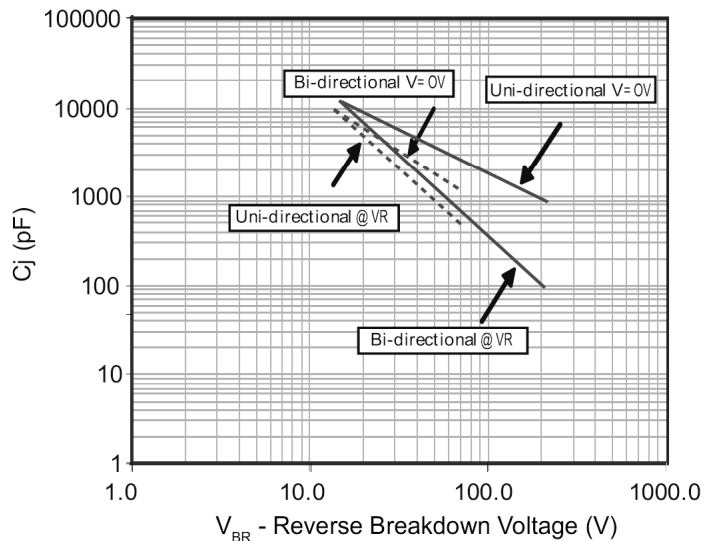


Figure 6 - Maximum Non-Repetitive Peak Forward Surge Current

