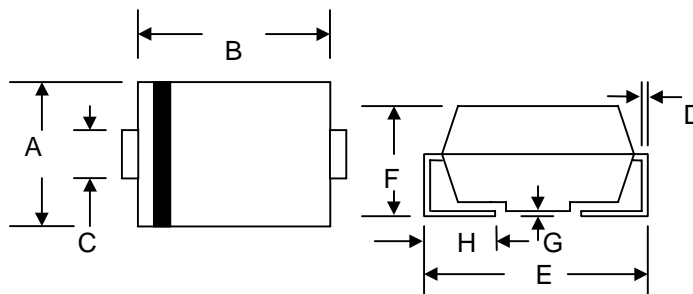


P6SMBJ180 – P6SMBJ220CA

600W SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSORS

Features

- Glass Passivated Die Construction
- 600W Peak Pulse Power Dissipation
- 180V – 220V Standoff Voltage
- Uni- and Bi-Directional Versions Available
- Excellent Clamping Capability
- Fast Response Time
- Plastic Case Material has UL Flammability Classification Rating 94V-O



Mechanical Data

- Case: JEDEC DO-214AA Low Profile Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking:
Unidirectional – Device Code and Cathode Band
Bidirectional – Device Code Only
- Weight: 0.093 grams (approx.)

SMB/DO-214AA		
Dim	Min	Max
A	3.30	3.94
B	4.06	4.70
C	1.91	2.11
D	0.152	0.305
E	5.08	5.59
F	2.13	2.44
G	0.051	0.203
H	0.76	1.27
All Dimensions in mm		

“C” Suffix Designates Bi-directional Devices
 “A” Suffix Designates 5% Tolerance Devices
 No Suffix Designates 10% Tolerance Devices

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Pulse Power Dissipation 10/1000μs Waveform (Note 1, 2) Figure 3	PPM	600 Minimum	W
Peak Pulse Current on 10/1000μs Waveform (Note 1) Figure 4	IPPM	See Table 1	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) (Note 2, 3)	IFSM	100	A
Operating and Storage Temperature Range	T _j , T _{STG}	-55 to +150	°C

Note: 1. Non-repetitive current pulse, per Figure 4 and derated above T_A = 25°C per Figure 1.
 2. Mounted on 5.0mm² (0.013mm thick) land areas.
 3. Measured on 8.3ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minutes maximum.

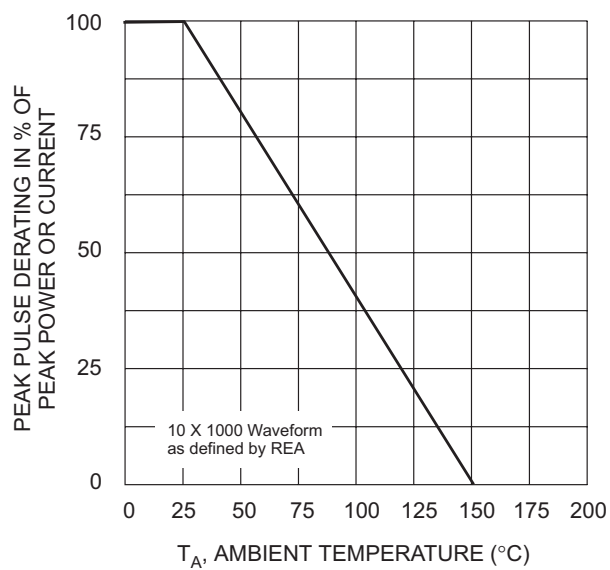


Fig. 1 Pulse Derating Curve

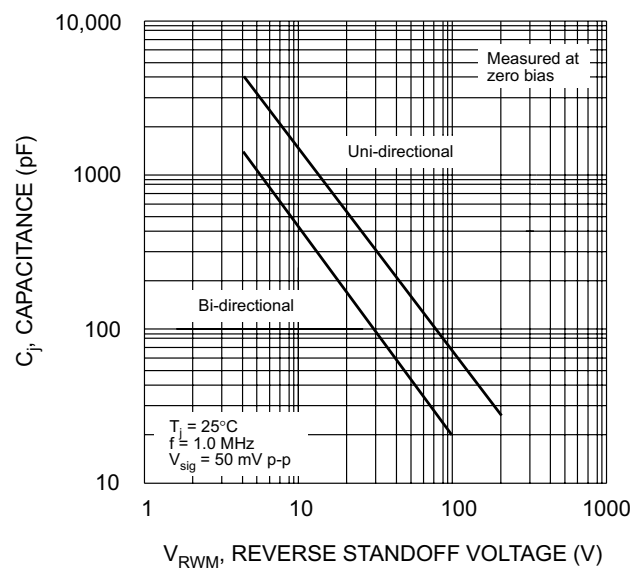


Fig. 2 Typical Junction Capacitance

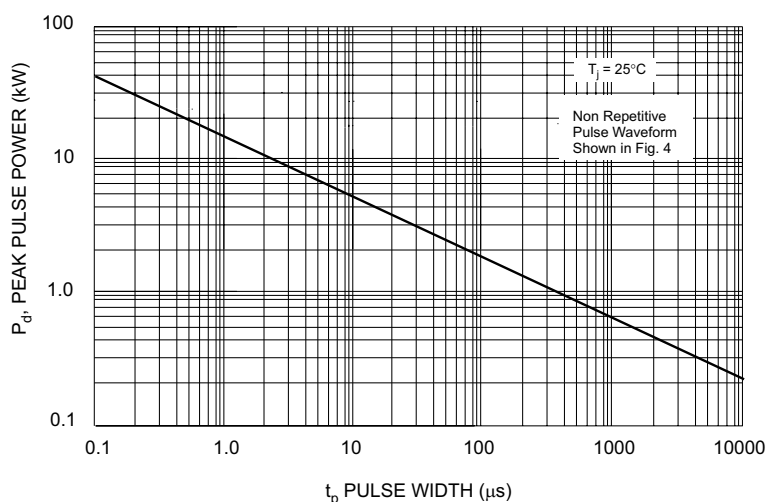


Fig. 3 Pulse Rating Curve

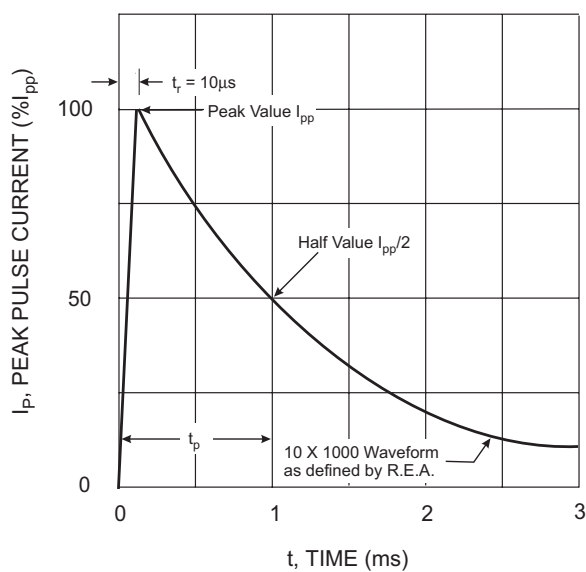


Fig. 4 Pulse Waveform

UNI-DIRECTIONAL 600 WATT SURFACE MOUNT TVS

UNI-DIRECTIONAL PART NO.	DEVICE MARKING CODE	REVERSE STAND-OFF VOLTAGE VRWM (V)	BREAKDOWN VOLTAGE VBR (V) MIN. @IT	BREAKDOWN VOLTAGE VBR (V) MAX. @IT	TEST CURRENT IT (mA)	MAXIMUM CLAMPING VOLTAGE @Ipp Vc (V)	PEAK PULSE CURRENT Ipp (A)	REVERSE LEAKAGE @VRWM IR (uA)
P6SMBJ180	PS	180.00	198.00	253.80	1	322.0	1.9	5
P6SMBJ180A	PT	180.00	198.00	230.40	1	292.0	2.1	5
P6SMBJ190	PU	190.00	209.00	267.90	1	340.0	1.8	5
P6SMBJ190A	PV	190.00	209.00	243.20	1	308.0	2.0	5
P6SMBJ200	PW	200.00	220.00	282.00	1	358.0	1.7	5
P6SMBJ200A	PX	200.00	220.00	256.00	1	324.0	1.9	5
P6SMBJ210	PY	210.00	231.00	296.10	1	376.0	1.6	5
P6SMBJ210A	PZ	210.00	231.00	268.80	1	340.0	1.8	5
P6SMBJ220	QD	220.00	242.00	310.20	1	394.0	1.5	5
P6SMBJ220A	QE	220.00	242.00	281.60	1	356.0	1.7	5

BI-DIRECTIONAL 600 WATT SURFACE MOUNT TVS

BI-DIRECTIONAL PART NO.	DEVICE MARKING CODE	REVERSE STAND-OFF VOLTAGE VRWM (V)	BREAKDOWN VOLTAGE VBR (V) MIN. @IT	BREAKDOWN VOLTAGE VBR (V) MAX. @IT	TEST CURRENT IT (mA)	MAXIMUM CLAMPING VOLTAGE @Ipp Vc (V)	PEAK PULSE CURRENT Ipp (A)	REVERSE LEAKAGE @VRWM IR (uA)
P6SMBJ180C	ES	180.00	198.00	253.80	1	322.0	1.9	5
P6SMBJ180CA	ET	180.00	198.00	230.40	1	292.0	2.1	5
P6SMBJ190C	EU	190.00	209.00	267.90	1	340.0	1.8	5
P6SMBJ190CA	EV	190.00	209.00	243.20	1	308.0	2.0	5
P6SMBJ200C	EW	200.00	220.00	282.00	1	358.0	1.7	5
P6SMBJ200CA	EX	200.00	220.00	256.00	1	324.0	1.9	5
P6SMBJ210C	EY	210.00	231.00	296.10	1	376.0	1.6	5
P6SMBJ210CA	EZ	210.00	231.00	268.80	1	340.0	1.8	5
P6SMBJ220C	FD	220.00	242.00	310.20	1	394.0	1.5	5
P6SMBJ220CA	FE	220.00	242.00	281.60	1	356.0	1.7	5

ORDERING INFORMATION

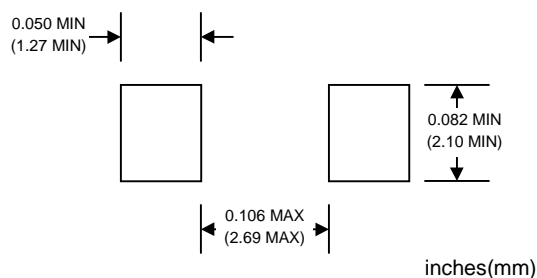
Product No.◆	Package Type	Shipping Quantity
P6SMBJxx-T1	SMB	500/Tape & Reel
P6SMBJxx-T3	SMB	3000/Tape & Reel
P6SMBJxxA-T1	SMB	500/Tape & Reel
P6SMBJxxA-T3	SMB	3000/Tape & Reel
P6SMBJxxC-T1	SMB	500/Tape & Reel
P6SMBJxxC-T3	SMB	3000/Tape & Reel
P6SMBJxxCA-T1	SMB	500/Tape & Reel
P6SMBJxxCA-T3	SMB	3000/Tape & Reel

Products listed in **bold** are WTE **Preferred** devices.

◆T1 suffix refers to a 7" reel. T3 suffix refers to a 13" reel.

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

RECOMMENDED FOOTPRINT



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WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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We power your everyday.