Technical Data
Data Sheet N1757, Rev. B

SMAJ200A SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

SMA

Features

- Ideal for Automated Placement
- Glass Passivated Chip Junction
- 400W Peak Pulse Power Capability with a 10/1000 μ s Waveform,
- Repetitive Rate (Duty Cycle): 0.01%
- Very Fast Response Time
- Solder Dip 260° C, 40 Seconds
- Low Incremental Surge Resistance

Circuit Diagram

Mechanical Data

- Case: SMA Low Profile Molded Plastic
- Terminals: Solder Plated , Solderable per MIL-STD 750, Method 2026
- Polarity: Color band denotes cathode except Bipolar
- Mounting Position: Any

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

Characteristic	Symbol	Value	Unit
Junction Temperature Range	T_J	-65 to +150	°C
Storage Temperature Range	T_{STG}	-65 to +150	°C
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	120	°C/W
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	30	°C/W
Peak Pulse Power (with 10/1000μs waveform) (Fig.1)(Note 1), (Note 2)	P_{PPM}	400	W
Forward Surge Current (8.3 ms single half sine-wave)	I_{FSM}	60	A
Maximum Instantaneous Forward Voltage at 25A for Unidirectional only	V_F	6.5	V

Notes: 1. Non-repetitive current pulse, per Fig. 3 and derated above T_A = 25℃ per Fig. 2.
2. 8.3ms single half sine-wave, or equivalent square wave, Duty cycle = 4 pulses per minutes maximum.

Ordering Information

Device	Package	Shipping
SMAJ200A	SMA (Pb-Free)	5000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram

Where XXXXX is YYWWL

SV	= Marking code
YY	= Year
WW	= Week
L	= Lot Number

Cautions: Molding resin
Epoxy resin UL:94V-0

Technical Data
Data Sheet N1757, Rev. B

RoHS

Electrical Characteristics@T_A=25° C unless otherwise specified

Part Number	Marking code	Reverse Stand off Voltage V_R	Breakdown Voltage V_{BR} (Volts) @ I_T		Test Current I_T	Maximum Clamping Voltage V_C @ Ipp	Maximum Peak Pulse Current Ipp	Maximum Reverse Leakage I_R @V_R
		(Volts)	MIN.	MAX.	(mA)	(Volts)	(A)	(µA)
SMAJ200A	SV	200.0	224	247	1	324.0	1.2	1

Ratings and Characteristics Curves

Figure 1 - Peak Pulse Power Rating Curve

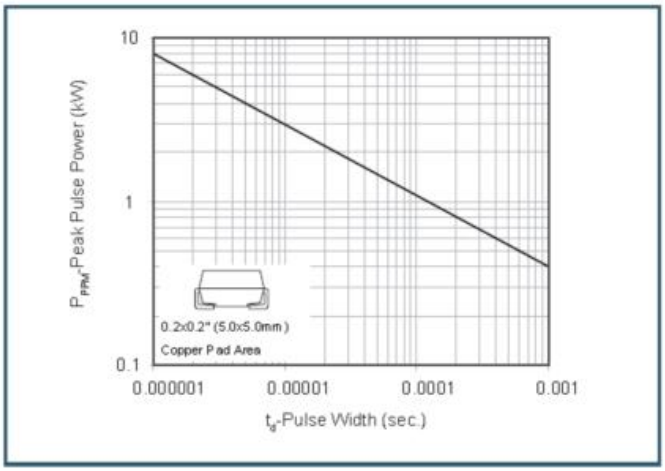


Figure 2 - Pulse Derating Curve

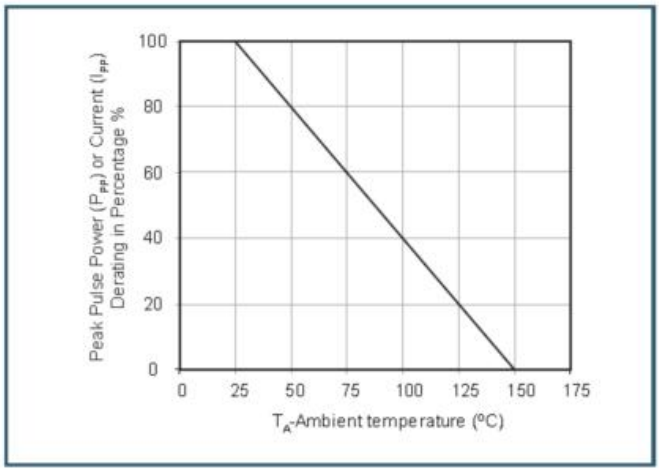


Figure 3 - Pulse Waveform

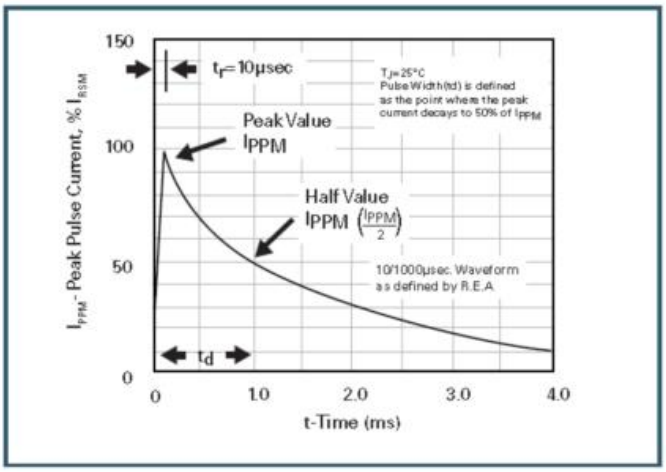


Figure 4 - Typical Junction Capacitance

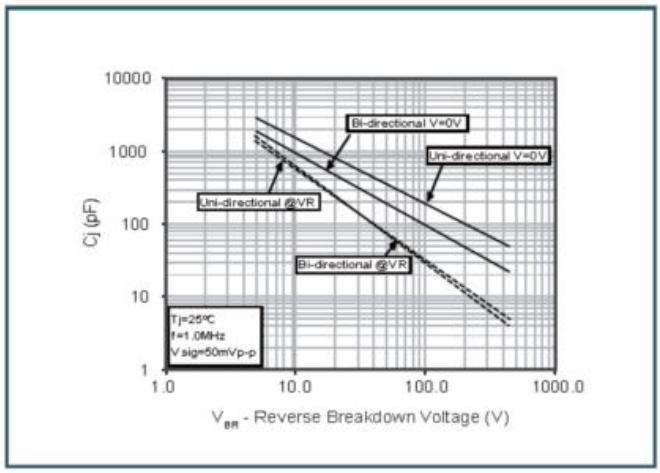
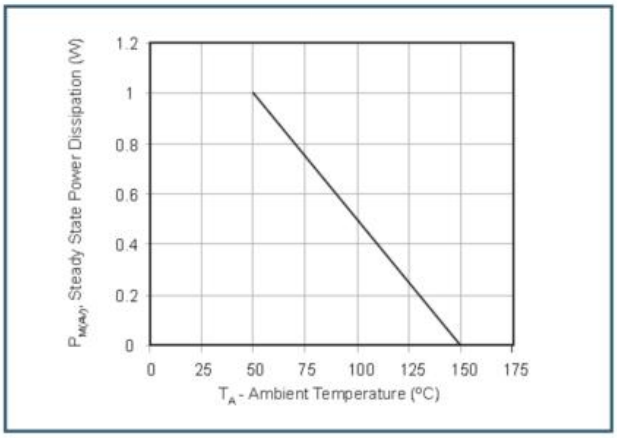
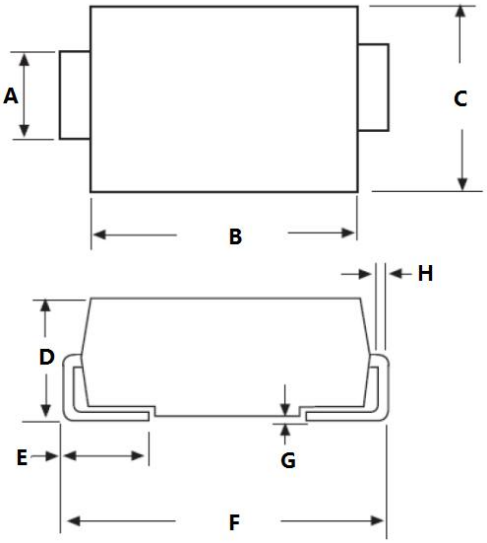


Figure 5 - Steady State Power Dissipation Derating Curve

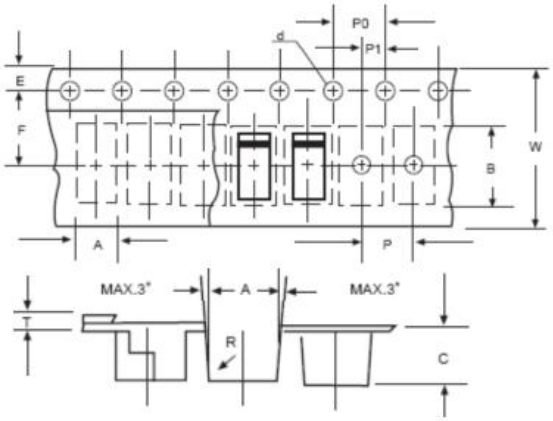


Mechanical Dimensions SMA(Inches/Millimeters)



SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.25	1.65	0.049	0.065
B	3.95	4.60	0.156	0.181
C	2.25	2.95	0.089	0.116
D	1.95	2.90	0.077	0.114
E	0.75	1.60	0.030	0.063
F	4.80	5.60	0.189	0.220
G	0.05	0.20	0.002	0.008
H	0.15	0.41	0.006	0.016

Carrier Tape Specification SMA



SYMBOL	Millimeters	
	Min.	Max.
A	2.97	3.17
B	5.70	5.90
C	2.32	2.52
d	1.40	1.60
E	1.40	1.60
F	5.60	5.70
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
T	0.25	0.35
W	11.80	12.20

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