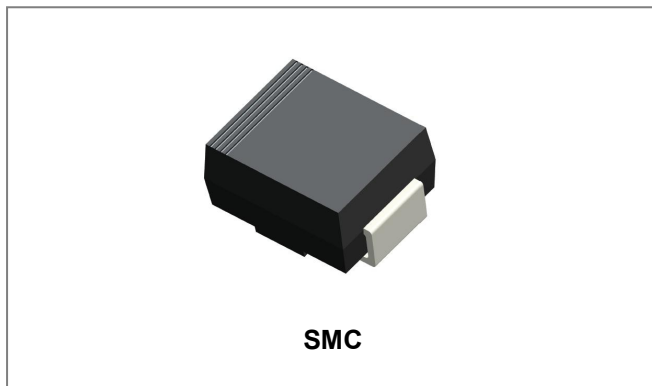


## SMCJ200CA SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR



### Features

- Glass Passivated Die Construction
- 1500W Peak Pulse Power Dissipation
- Bi-Directional Versions Available
- Excellent Clamping Capability
- Fast Response Time
- Plastic Case Material has UL Flammability Classification Rating 94V-0
- “-A” is an AEC-Q101 qualified device
- This is a Pb – Free Device
- All SMC Parts are Traceable to the Wafer Lot
- Additional testing can be offered upon request

### Circuit Diagram



Bipolar

### Mechanical Data

- Case: SMC Low Profile Molded Plastic
- Terminals: Solder Plated , Solderable per MIL-STD 750, Method 2026
- Polarity: Color band denotes cathode except Bipolar
- Mounting Position: Any
- Weight:0.21grams(approx.)

### Maximum Ratings and Thermal Characteristics@T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Junction Temperature Range	T <sub>J</sub>	-55 to +175	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C
Typical Thermal Resistance Junction to Lead	R <sub>θJL</sub>	15	°C/W
Typical Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	75	°C/W
Peak Pulse Power (with 10/1000µs waveform)	P <sub>PPM</sub>	1500	W

Note: 1. Non-repetitive current pulse, per Fig.3 and derated above Ta=25 °C per Fig.2.  
2. Mounted on Copper Pad area of 5.0x5.0 mm to each terminal.

### Ordering Information

Device	Package	Shipping
SMCJ200CA	SMC (Pb-Free)	3000pcs / reel
SMCJ200CATR	SMC (Pb-Free)	3000pcs / 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

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

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

**Electrical Characteristics @  $T_A=25^\circ\text{C}$  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 $V_C$ @ $I_{pp}$	Maximum Peak Pulse Current $I_{pp}$	Maximum Reverse Leakage $I_R$ @ $V_R$
		(Volts)	MIN.	MAX.	(mA)	(Volts)	(A)	( $\mu\text{A}$ )
SMCJ200CA	BHV	200.0	224	247	1	324.0	4.6	1

**Ratings and Characteristics Curves**

Figure 1 - Peak Pulse Power Rating Curve

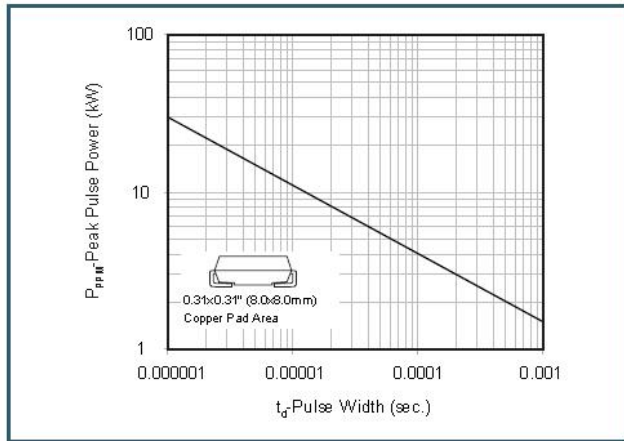


Figure 2 - Pulse Derating Curve

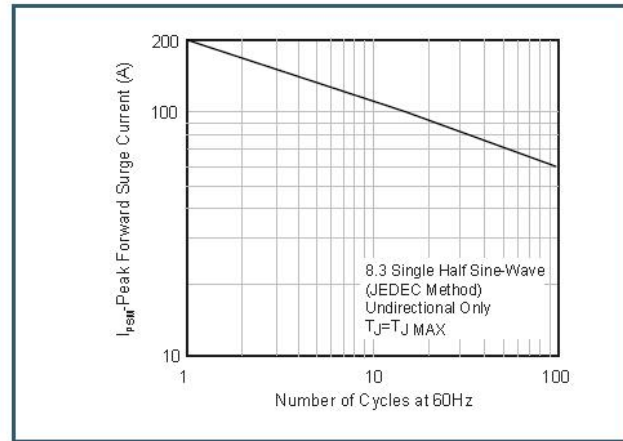


Figure 3 - Pulse Waveform

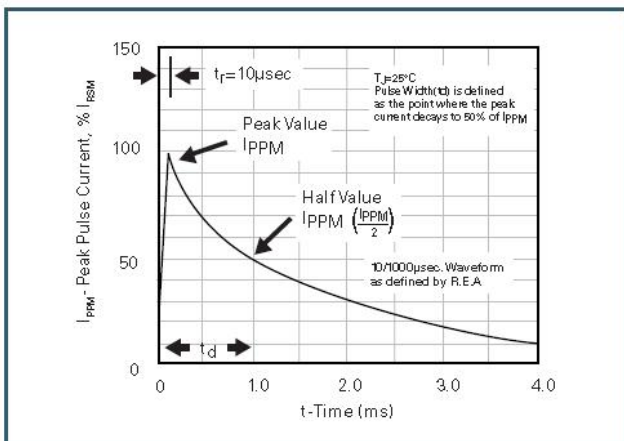


Figure 4 - Typical Junction Capacitance

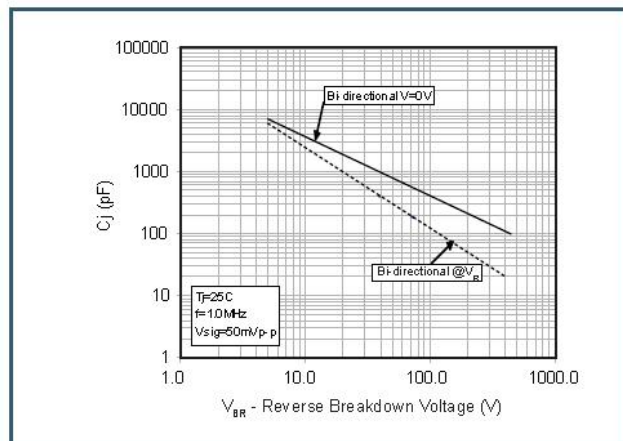
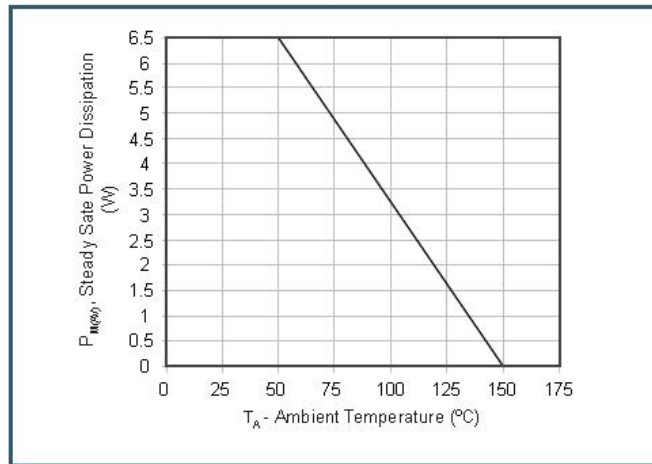
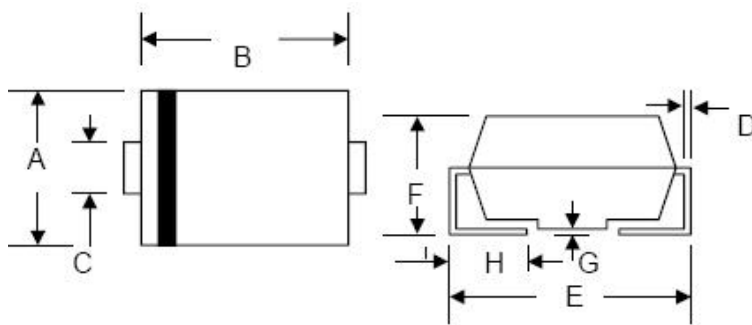


Figure 5 - Steady State Power Dissipation Derating Curve

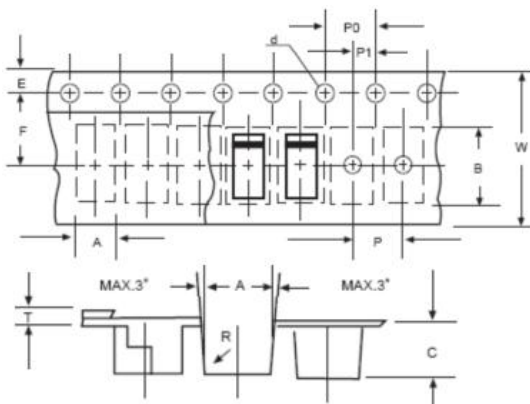


**Mechanical Dimensions SMC**



Dim.	SMC			
	Min.	Max.	Min.	Max.
A	5.59	6.22	0.220	0.245
B	6.60	7.11	0.260	0.280
C	2.75	3.25	0.108	0.128
D	0.152	0.51	0.006	0.02
E	7.75	8.13	0.305	0.320
F	2.00	2.62	0.079	0.103
G	-	0.203	-	0.008
H	0.76	1.52	0.030	0.060
	In Millimeters		In inches	

**Carrier Tape Specification SMC**



SYMBOL	Millimeters	
	Min.	Max.
A	5.90	6.10
B	8.20	8.40
C	2.40	2.60
d	1.40	1.60
E	1.40	1.60
F	7.60	7.70
P	7.90	8.10
P0	3.90	4.10
P1	3.90	4.10
T	-	0.600
W	15.80	16.20



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