

SMAJ400CA SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR



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%
- High temperature soldering: 250° C/10 seconds at terminals
- Plastic package has Underwriters Laboratory Flammability Classification 94 V-0

Mechanical Data

- **Case:** SMA Low Profile Molded Plastic
- **Terminals:** Solder Plated , Solderable per MIL-STD-750, Method 2026
- **Mounting Position:** Any
- **Polarity:** Bipolar
- **Weight:**0.064 grams(approx.)

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
Peak Pulse Power (with 10/1000µs waveform) (Fig.1)(Note 1), (Note 2)	P _{PPM}	400	W
Typical Thermal Resistance Junction to Lead	R _{θJL}	30	°C/W
Typical Thermal Resistance Junction to Ambient	R _{θJA}	120	°C/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
SMAJ400CA	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

UK = 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)	(μA)
SMAJ400CA	UK	400	447	494	1	648	0.6	1

Ratings and Characteristics Curves

Figure 1 - Peak Pulse Power Rating Curve

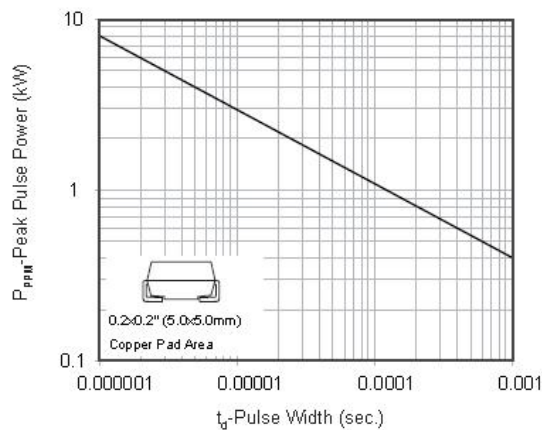


Figure 2 - Pulse Derating Curve

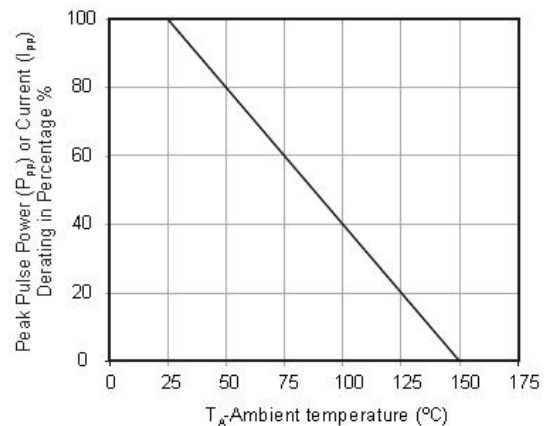


Figure 3 - Pulse Waveform

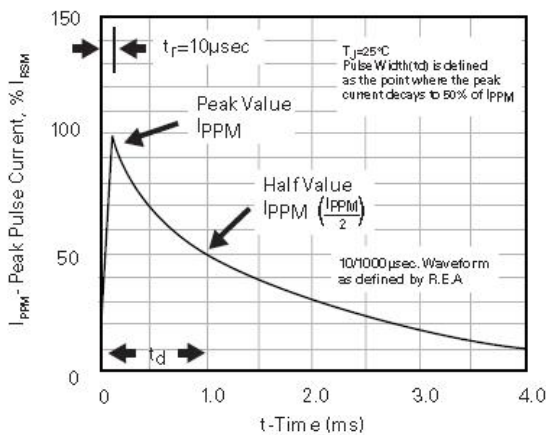


Figure 4 - Typical Junction Capacitance

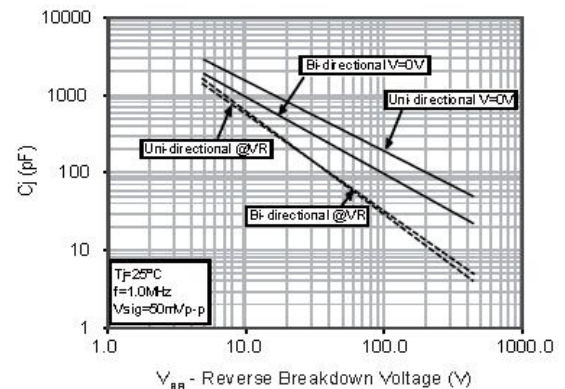
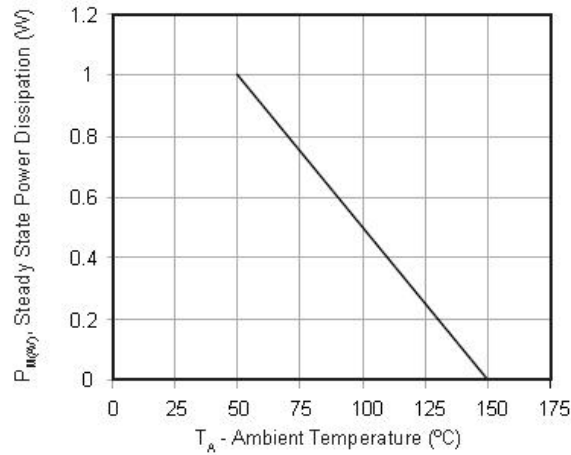
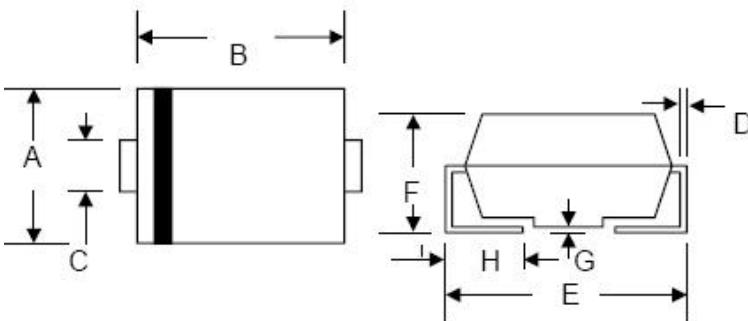


Figure 5 - Steady State Power Dissipation Derating Curve

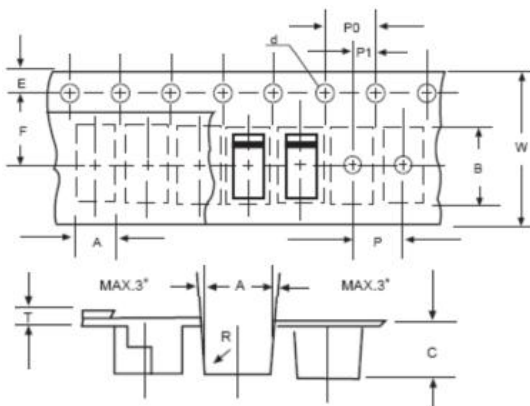


Mechanical Dimensions SMA(Inches/Millimeters)



Dim.	SMA/DO-214AC			
	Min.	Max.	Min.	Max.
A	2.40	2.90	0.094	0.114
B	3.99	4.75	0.157	0.187
C	1.05	1.70	0.041	0.067
D	0.15	0.51	0.006	0.020
E	4.80	5.66	0.189	0.223
F	1.90	2.95	0.075	0.116
G	0.05	0.203	0.002	0.008
H	0.76	1.52	0.030	0.600
	In mm		In inch	

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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