SMAJ 400A

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

Stand-off Voltage : 400V
Peak Pulse Power : 400 W

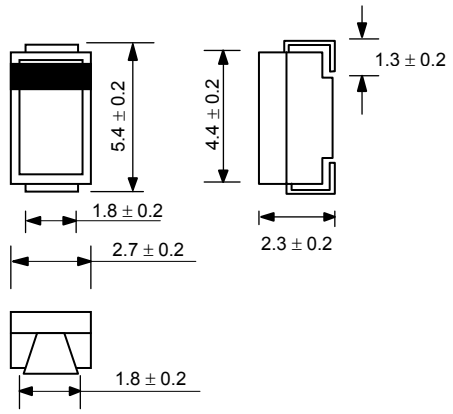
FEATURES :

* 400W peak pulse power capability with a 10/1000μs waveform
* Optimized for LAN protection applications
* Low clamping
* Very fast response time
* Pb / RoHS Free

MECHANICAL DATA :

* Case : SMA Molded plastic
* Epoxy : UL94V-O rate flame retardant
* Polarity : Color band denotes cathode end
* Mounting position : Any
* Weight : 0.060 gram (Approximately)

SMA



Dimensions in millimeters

MAXIMUM RATINGS (Rating at 25 °C ambient temperature unless otherwise specified.)

Rating	Symbol	Value	Unit
Peak Pulse Power Dissipation (Note1,2,4) Fig. 4	P_{PPM}	Minimum 400	W
Peak Forward Surge Current per Fig. 5 (Note 3)	I_{FSM}	40	A
Maximum Instantaneous Forward Voltage at I_F = 25A	V_{FM}	3.5	V
Typical thermal resistance, junction to lead	$R_{\theta JL}$	30	°C/W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	- 55 to + 150	°C

ELECTRICAL CHARACTERISTICS (Rating at 25°C ambient temperature unless otherwise specified)

Type No.	Breakdown Voltage @ I_T (5)			Working Peak Reverse Voltage	Maximum Reverse Leakage @ V_{WM}	Maximum Peak Pulse Surge Current	Maximum Clamping Voltage @ I_{PPM}
	V_{BR} (V)		I_T	V_{WM}	I_R	I_{PPM}	V_C
	Min.	Max.	(mA)	(V)	(μA)	(A)	(V)
SMAJ400A	447	494	1.0	400	5.0	0.60	648

Notes :

(1) Non-repetitive Current pulse, per Fig. 3 and derated above Ta = 25 °C per Fig. 1
(2) Mounted on 0.2 x 0.2"(5.0 x 5.0 mm) copper pads to each terminal.
(3) 8.3ms single half sine-wave duty cycle=4 pulses per minutes maximum.
(4) Peak pulse power waveform is 10/1000μs.
(5) Pulse test : tp ≤ 50ms.

RATING AND CHARACTERISTIC CURVES (SMAJ400A)

FIG.1 - PULSE DERATING CURVE

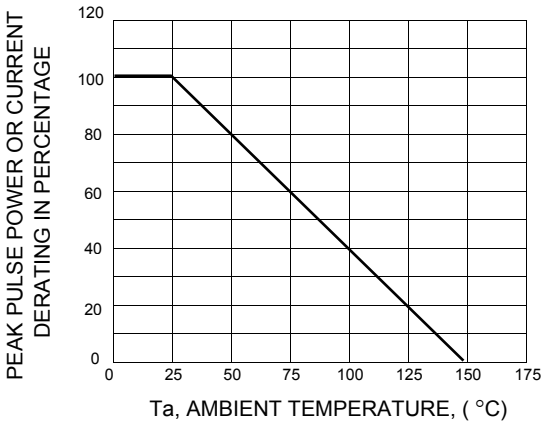


FIG.2 - TYPICAL JUNCTION CAPACITANCE

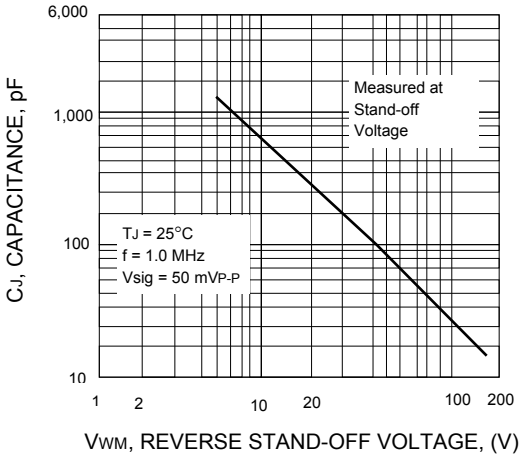


FIG.3 - PULSE WAVEFORM

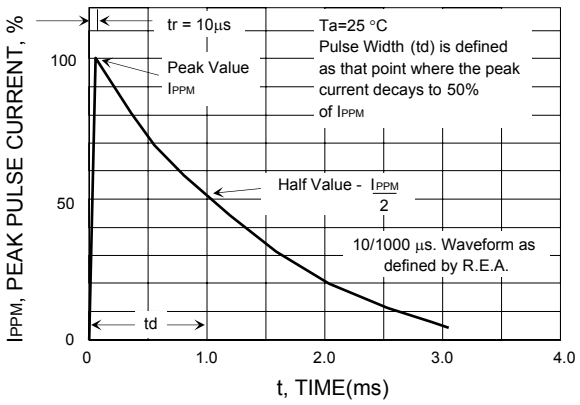


FIG.4 - PEAK PULSE POWER RATING CURVE

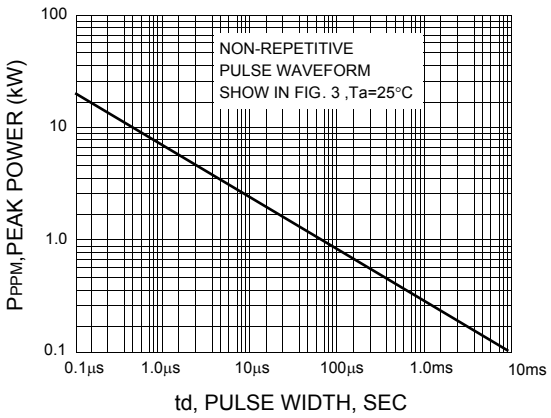


FIG.5 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT