

# SMAJ 400A

## SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

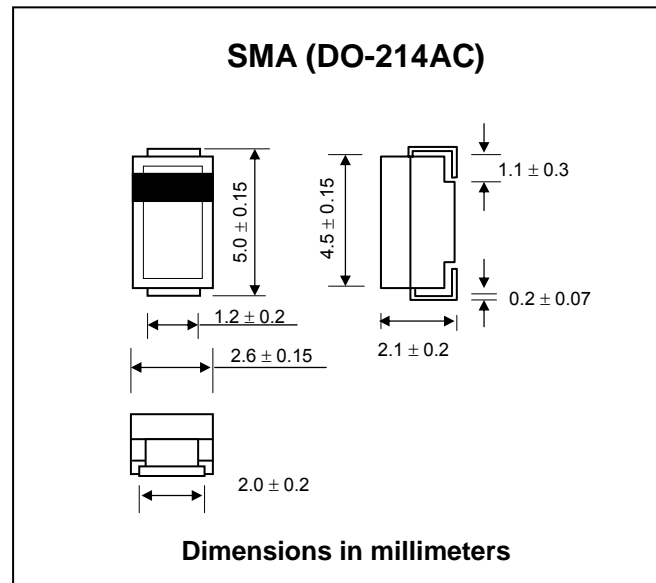
**Stand-off Voltage : 400V**  
**Peak Pulse Power : 400 W**

### 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
- \* Lead : Lead Formed for Surface Mount
- \* Polarity : Color band denotes cathode end except Bipolar.
- \* Mounting position : Any
- \* Weight : 0.064 grams



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

Rating	Symbol	Value	Unit
Peak Pulse Power Dissipation (Note 1,2,4) 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

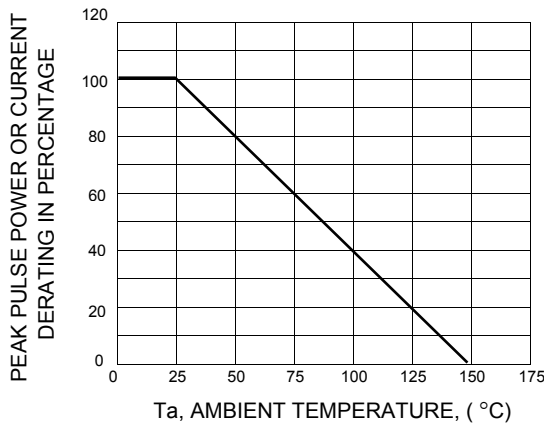
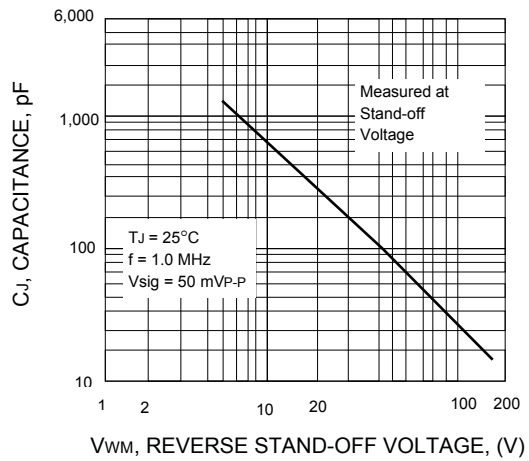
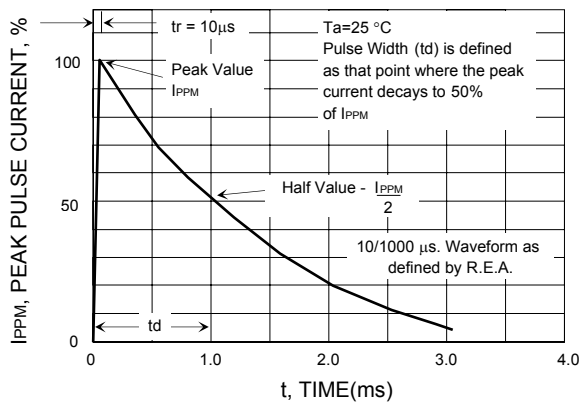
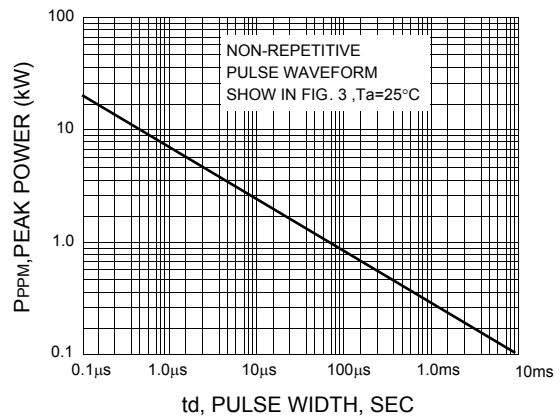
### ELECTRICAL CHARACTERISTICS (Rating at 25°C ambient temperature unless otherwise specified)

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)		$V_{WM}$	$I_R$	$I_{PPM}$	$V_C$
	Min.	Max.	(V)	(µA)	(A)	(V)
<b>SMAJ400A</b>	447	494	400	5.0	0.60	648

#### Notes :

- (1) Non-repetitive Current pulse, per Fig. 3 and derated above  $T_a = 25\text{ °C}$  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 :  $t_p \leq 50ms$ .

## 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**
