

## Low Capacitance

Stand-Off Voltage: 5.0 to 50 V

Peak Pulse Power: 500 W

## Surface Mount Transient Voltage Suppressors

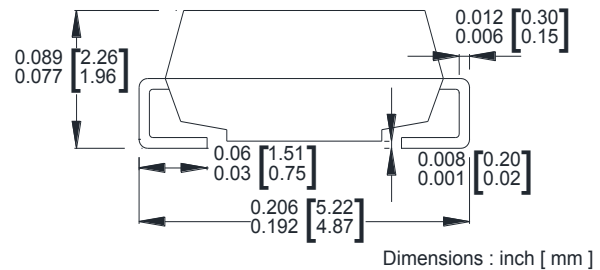
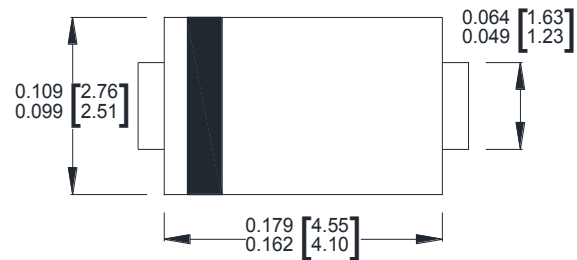
### Features

- Glass passivated chip
- 500 W peak pulse power capability with a 10/1000  $\mu$ s waveform, repetitive rate (duty cycle):0.01 %
- Low leakage
- Excellent clamping capability
- Very fast response time
- RoHS compliant

### Mechanical Data

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Solderable per MIL-STD-750, method 2026 guranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any

SMA/ DO-214AC



Dimensions : inch [ mm ]

### Maximum Ratings( $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak power dissipation with a 10/1000 $\mu$ s waveform <sup>(1)</sup>	$P_{PP}$	500	W
Power dissipation on infinite heatsink at $T_L = 75^\circ\text{C}$ (Fig.2)	$P_D$	3.0	W
Peak pulse current with a 10/1000 $\mu$ s waveform(Fig.2) <sup>(1)</sup>	$I_{PP}$	See Next Table	A
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150	$^\circ\text{C}$

#### Note:

(1)Non-repetitive current pulse per Fig.3 and derated above  $T_A=25^\circ\text{C}$  per Fig.2

**Ratings and Characteristics Curves ( $T_A=25^\circ\text{C}$  unless otherwise noted)**

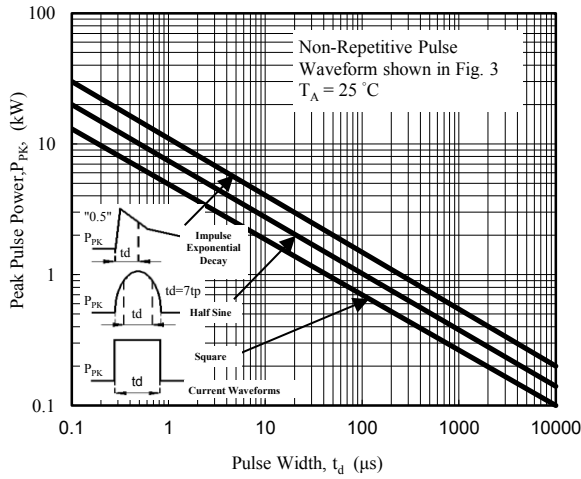


Fig. 1 - Peak Pulse Power Rating Curve

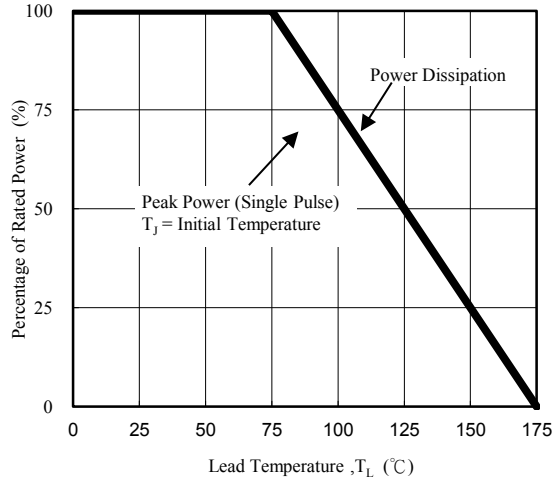


Fig. 2 - Power Derating Curve  
Surge Current

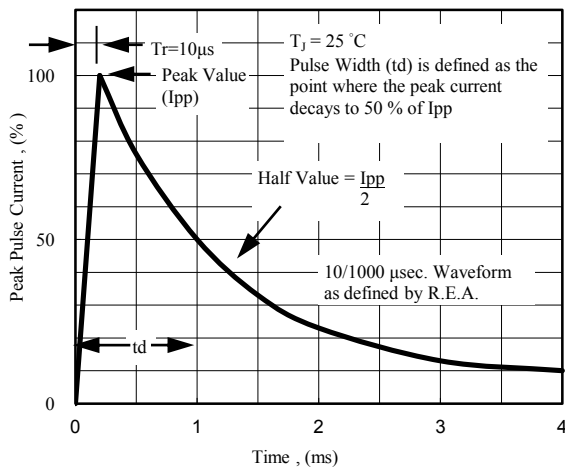
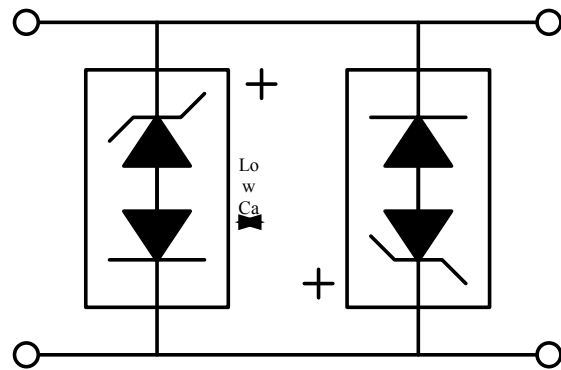


Fig. 3 - Pulse Waveform



**Application Note:** Device must be used with two units in parallel, opposite in polarity as shown in circuit for AC signal line protection.

Fig. 4 - AC Line Protection Application



Electrical Characteristics( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

Part Number	Device Marking Code	Stand-Off Voltage $V_{WM}$ (V)	Minimum Breakdown Voltage $V_{BR}@I_T=1.0\text{mA}$ (V)	Maximum Reverse Leakage $I_R$ @ $V_{WM}$ (uA)	Maximum Clamping Voltage $V_C$ @ $I_{PP}$ (V)	Maximum Reverse Surge Current $I_{PP}$ (A)	Maximum Junction Capacitance @0 V (pF)	Working Inverse Blocking Voltage $V_{WIB}$ (V)	Inverse Blocking Leakage Current $I_{IB}$ @ $V_{WIB}$ (mA)	Peak Inverse Voltage $V_{PIB}$ (V)
SACA5.0	SAD	5.0	7.60	300	10.0	44.0	50	75	1	100
SACA6.0	SAE	6.0	7.90	300	11.2	41.0	50	75	1	100
SACA7.0	SAF	7.0	8.33	300	12.6	38.0	50	75	1	100
SACA8.0	SAG	8.0	8.89	100	13.4	36.0	50	75	1	100
SACA8.5	SAH	8.5	9.44	50	14.0	34.0	50	75	1	100
SACA10	SAK	10.0	11.10	5	16.3	29.0	50	75	1	100
SACA12	SAL	12.0	13.30	5	19.0	25.0	50	75	1	100
SACA15	SAM	15.0	16.70	5	23.6	20.0	50	75	1	100
SACA18	SAN	18.0	20.00	5	28.8	15.0	50	75	1	100
SACA22	SAP	22.0	24.40	5	35.4	14.0	50	75	1	100
SACA26	SAQ	26.0	28.90	5	42.3	11.1	50	75	1	100
SACA30	SAR	30.0	33.30	5	48.6	10.0	50	75	1	100
SACA36	SAS	36.0	40.00	5	60.0	8.6	50	75	1	100
SACA45	SAT	45.0	50.00	5	77.0	6.8	50	150	1	200
SACA50	SAU	50.0	55.50	5	88.0	5.8	50	150	1	200