

## SAC SERIES

### LOW CAPACITANCE TRANSIENT VOLTAGE SUPPRESSOR STAND-OFF VOLTAGE-5.0 TO 50 Volts 500 Watt Peak Pulse Power

SAC PART NUMBER	STAND-OFF VOLTAGE (NOTE1) $V_{WM}$ (VOLTS)	MINIMUM BREAKDOWN VOLTAGE AT $I_T=1.0mA$ $V(BR)$ (VOLTS)	MAXIMUM REVERSE LEAKAGE AT $V_{WM}$ $I_R(\mu A)$	MAXIMUM CLAMPING VOLTAGE AT $I_{pp}=5.0A$ $V_C$ (V)	MAXIMUM PEAK PULSE CURRENT PER FIG.3 $I_{pp}$ (AMPS)	MAXIMUM JUNCTION CAPACITANCE AT 0 VOLTS (pF)	WORKING INVERSE BLOCKING VOLTAGE $V_{WIB}$ (VOLTS)	INVERSE BLOCKING LEAKAGE CURRENT $V_{WIB}$ $I_{IB}(mA)$	PEAK INVERSE BLOCKING VOLTAGE $V_{PIB}$ (VOLTS)
SAC5.0	5.0	7.60	300	10.0	44.0	50	75	1.0	100
SAC6.0	6.0	7.90	300	11.2	41.0	50	75	1.0	100
SAC7.0	7.0	8.33	300	12.6	38.0	50	75	1.0	100
SAC8.0	8.0	8.89	100	13.4	36.0	50	75	1.0	100
SAC8.5	8.5	9.44	50	14.0	34.0	50	75	1.0	100
SAC10	10.0	11.10	5	16.3	29.0	50	75	1.0	100
SAC12	12.0	13.30	5	19.0	25.0	50	75	1.0	100
SAC15	15.0	16.70	5	23.6	20.0	50	75	1.0	100
SAC18	18.0	20.00	5	28.8	15.0	50	75	1.0	100
SAC22	22.0	24.40	5	35.4	14.0	50	75	1.0	100
SAC26	26.0	28.90	5	42.3	11.1	50	75	1.0	100
SAC30	30.0	33.30	5	48.6	10.0	50	75	1.0	100
SAC36	36.0	40.00	5	60.0	8.6	50	75	1.0	100
SAC45	45.0	50.00	5	77.0	6.8	50	150	1.0	200
SAC50	50.0	55.50	5	88.0	5.8	50	150	1.0	200

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### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated junction
- 500W Peak Pulse Power capability with a 10/1000 $\mu$ s waveform, repetition rate (duty cycle): 0.01%
- Excellent clamping capability
- Low incremental surge resistance
- Fast response time: typically less than 1.0ns from 0 Volts to V(BR)
- Ideal for data line applications
- High temperature soldering guaranteed: 265°C/10 seconds, 0.375" (9.5mm) lead length, 5lbs., (2.3kg) tension

### MECHANICAL DATA

**Case :** JEDEC DO-15 molded plastic over a passivated junction

**Terminal:** Solder plated axial leads, solderable per MIL-STD-750 ,Method 2026

**Polarity :** Color band denotes positive end (cathode)

**Mounting Position :** Any

**Weight :** 0.015 ounce, 0.4 gram

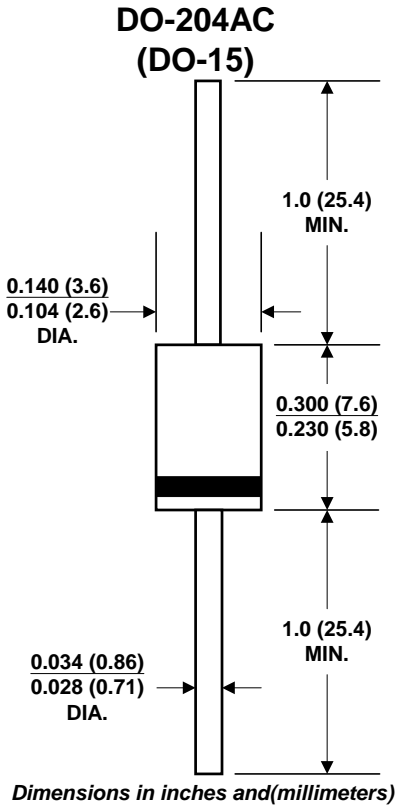
### MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25 ambient temperature unless otherwise specified.

RATING	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation with a 10/1000 $\mu$ s waveform (Note 1)	$P_{PPM}$	Minimum 500	Watts
Steady State Power Dissipation at TL= 75°C with lead lengths or 0.375" (9.5mm)	$P_{M(AV)}$	3	Watts
Peak Pulse Power Surge Current with a 10/1000 $\mu$ S waveform (Note 1.FIG.3)	$I_{PPM}$	SEE TABLE 1	Amps
Operating junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +175	° C

Note :

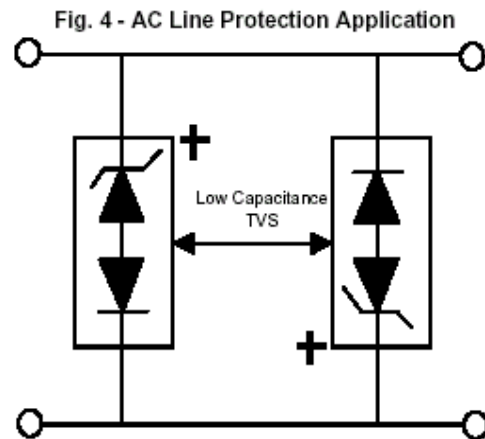
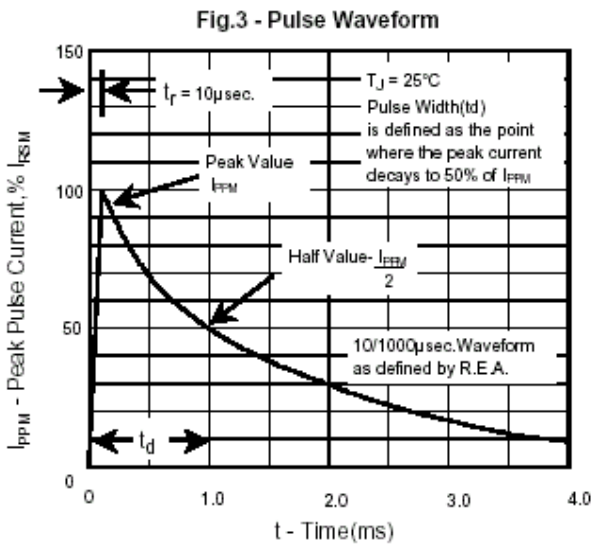
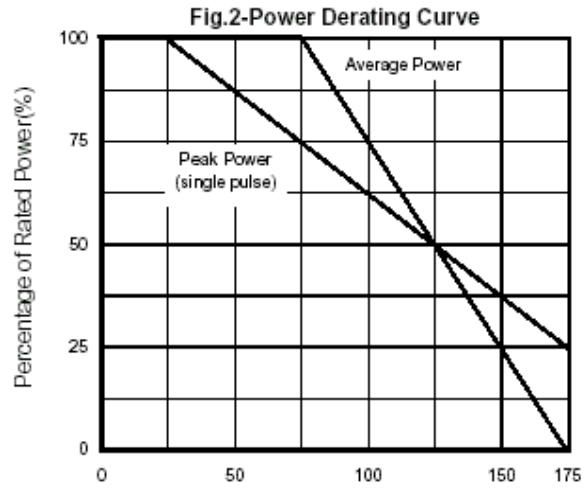
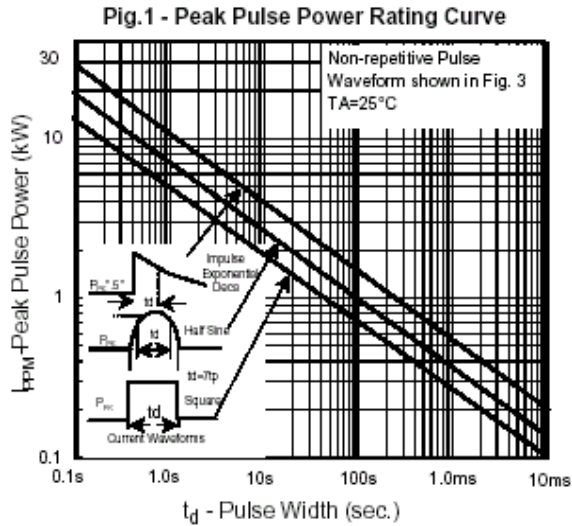
1.Non-repetitive current pulse , per Fig. 3 and derated above TA = 25 per Fig. 2 .



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## LOW CAPACITANCE TRANSIENT VOLTAGE SUPPRESSOR

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



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