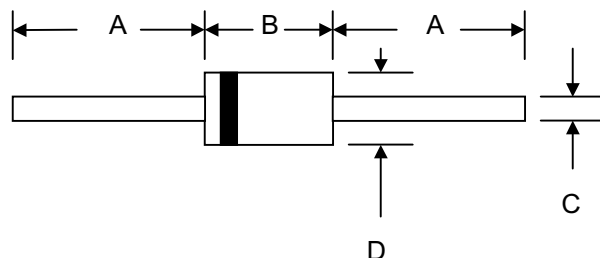


SENSITRON**SAC SERIES****SEMICONDUCTOR****LOW CAPACITANCE TRANSIENT VOLTAGE SUPPRESSOR**

Data Sheet 5011, Rev.-

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated junction
- 500W Peak Pulse Power capability on 10/1000 μ s waveform
- Voltage -5.0 to 50 Volts
- Glass passivated junction
- Low incremental surge resistance
- Excellent clamping capability
- Repetition rate (duty cycle): 0.01%
- Fast response time: typically less than 1.0 ps from 0 volts to BV
- Ideal for data line application
- High temperature soldering guaranteed: 265°C/10 seconds/.375", (9.5mm) lead length, 5lbs., (2.3kg) tension



DO-15				
Dim	Min	Max	Min	Max
A	25.4	—	1.000	—
B	5.50	7.62	0.217	0.300
C	0.71	0.864	0.028	0.034
D	2.60	3.60	0.102	0.142
	In mm		In inch	

MECHANICAL DATA

Case: JEDEC DO-15 Molded plastic over glass passivated junction

Terminals: Plated Axial leads, solderable per

MIL-STD-750, Method 2026

Polarity: Color band denoted positive end (cathode) except Bipolar

Mounting Position: Any

Weight: 0.015 ounce, 0.4 gram

Dimensions in inches (millimeters)

MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

RATING	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation on 10/1000 μ s waveform (NOTE 1, Fig. 1)	Pppm	Minimum 500	Watts
Peak Pulse Current of on 10/1000 μ s waveform (NOTE 1, Fig. 3)	Ippm	SEE TABLE 1	Amps
Steady State Power Dissipation at T _i =75 °C Lead Lengths .375", 9.5mm	Pm(AV)	3.0	Watts
Operating and Storage Temperature Range	T _j , T _{stg}	-55 to +175	°C

NOTES:1. Non-repetitive current pulse, per Fig. 3 and derated above T_a=25 °C per Fig. 2.

SENSITRON**SAC SERIES****SEMICONDUCTOR****LOW CAPACITANCE TRANSIENT VOLTAGE SUPPRESSOR**

Data Sheet 5011, Rev.-

500 Watt Low Capacitance TVS

PART NUMBER	REVERSE STANDOFF VOLTAGE V_{RWM} (V)	BREAKDOWN VOLTAGE $V_{BR}(V)$ MIN. @ I_T	MAXIMUM JUNCTION CAPACITANCE @ 0 VOLTS (pF)	WORKING INVERSE BLOCKING VOLTAGE V_{WIB} (VOLTS)	MAXIMUM CLAMPING VOLTAGE @ $I_{pp}=5.0A$ $V_c(V)$	PEAK PULSE CURRENT I_{PP} (A)	REVERSE LEAKAGE @ V_{RWM} I_R (μA)
SAC5.0	5.00	7.60	30	75	10.0	44.0	300
SAC6.0	6.00	7.90	30	75	11.2	41.0	300
SAC7.0	7.00	8.33	30	75	12.6	38.0	300
SAC8.0	8.00	8.89	30	75	13.4	36.0	100
SAC8.5	8.50	9.44	30	75	14.0	34.0	50
SAC10	10.00	11.10	30	75	16.3	29.0	5
SAC12	12.00	13.30	30	75	19.0	25.0	5
SAC15	15.00	16.70	30	75	23.6	20.0	5
SAC18	18.00	20.00	30	75	28.8	15.0	5
SAC22	22.00	24.40	30	75	35.4	14.0	5
SAC26	26.00	28.00	30	75	42.3	11.1	5
SAC30	30.00	33.30	30	75	48.6	10.0	5
SAC36	36.00	40.00	30	75	60.0	8.6	5
SAC45	45.00	50.00	30	150	77.0	6.8	5
SAC50	51.00	55.50	30	150	88.0	5.8	5

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$T_A=25^\circ\text{C}$ unless otherwise noted

Fig.1 - Peak Pulse Power Rating Curve

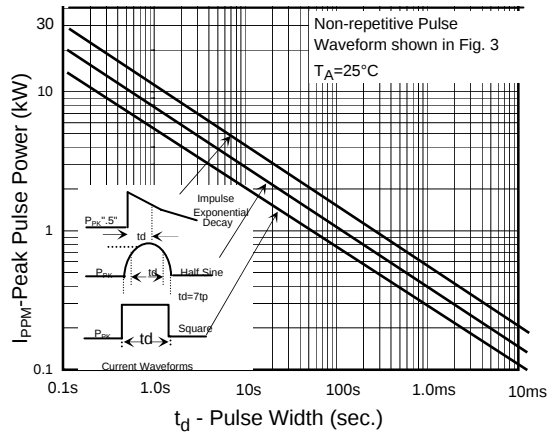


Fig.2 - Power Derating Curve

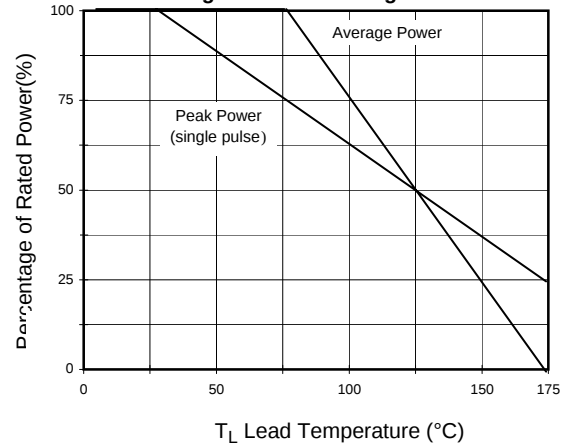


Fig.3 - Pulse Waveform

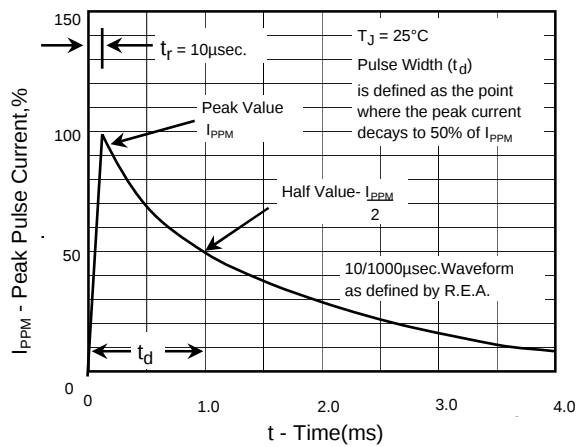
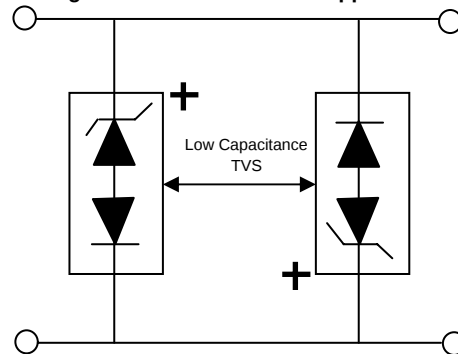


Fig. 4 - AC Line Protection Application



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

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