



**SAC5.0 thru  
SAC50**

**Features**

- 500 WATTS PEAK PULSE POWER
- LOW CAPACITANCE
- SMALL SIZE (DO-41)
- ECONOMICAL SERIES

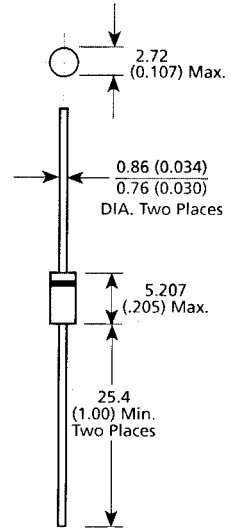
**Maximum Ratings**

Peak Pulse Power Dissipation at 25°C: 500 Watts  
Steady State Power Dissipation at  $T_L = +75^\circ\text{C}$ : 2.5 Watts (Lead Length=3/8")  
Clamping Speed (0 volts to  $V_{BR}$  Min.) less than 5 nanoseconds  
Operating and Storage Temperature:  $-65^\circ\text{C}$  to  $+175^\circ\text{C}$

**Application**

The SAC series TAZ is a low capacitance transient voltage suppressor rated at 500 Watts, providing board level protection for data or signal lines. The low capacitance rating of 50 pF minimizes the amount of signal loss or deformation up through 70 MHz.

LOW CAPACITANCE  
TRANSIENT  
ABSORPTION ZENER



**Electrical Characteristics at 25°C**

MICROSEMI PART NUMBER	REVERSE STAND-OFF VOLTAGE (Note 1) $V_{WM}$ Volts	BREAKDOWN VOLTAGE @ $I_T = 1.0\text{mA}$ $V_{BR}$ Volts Min.	MAXIMUM REVERSE LEAKAGE $I_{RM}$ $\mu\text{A}$	MAXIMUM CLAMPING VOLTAGE * $V_C$ Volts	MAXIMUM PEAK PULSE CURRENT RATING * $I_{PP}$ Amperes	CAPACITANCE @ 0 Volts pF	WORKING INVERSE BLOCKING VOLTAGE $V_{WIB}$ Volts	INVERSE BLOCKING CURRENT $I_{IB}$ mA	PEAK INVERSE BLOCKING VOLTAGE $V_{PIB}$ Volts
SAC5.0	5.0	7.60	300	10.0	44	50	75	1	100
SAC6.0	6.0	7.90	300	11.2	41	50	75	1	100
SAC7.0	7.0	8.33	300	12.6	38	50	75	1	100
SAC8.0	8.0	8.89	100	13.4	36	50	75	1	100
SAC8.5	8.5	9.44	50	14.0	34	50	75	1	100
SAC10	10	11.10	5.0	16.3	29	50	75	1	100
SAC12	12	13.30	5.0	19.0	25	50	75	1	100
SAC15	15	16.70	5.0	23.6	20	50	75	1	100
SAC18	18	20.00	5.0	28.8	15	50	75	1	100
SAC22	22	24.40	5.0	35.4	14	50	75	1	100
SAC26	26	28.90	5.0	42.3	11.1	50	75	1	100
SAC36	36	40.00	5.0	60.0	8.6	50	75	1	100
SAC45	45	50.00	5.0	77.0	6.8	50	150	1	200
SAC50	50	55.50	5.0	88.0	5.8	50	150	1	200

\* See Figure 4.

**Clamping Factor:** 1.4 @ full rated power, 1.20 @ 50% rated power. The ratio of the actual clamping voltage ( $V_C$ ) to the actual breakdown voltage ( $V_{BR}$ ).

**Note1:** A transient voltage suppressor is normally selected according voltage ( $V_{WM}$ ), which should be equal to or greater than the dc or continuous peak operating voltage level.

**Note 2:** When pulse testing, test in TVS avalanche direction. Do not pulse in "forward" direction.

**Note 3:** For bidirectional devices, consult factory.

NOTE: Cathode indicated by band.  
All dimensions in millimeters (inches).

**Mechanical Characteristics**

**CASE:** Void Free Transfer  
Molded Thermosetting  
Plastic. (DO-41)

**FINISH:** All External Surfaces  
Are Corrosion Resistant And  
Leads Solderable.

**POLARITY:** Cathode Marked  
With Band.

**WEIGHT:** 0.5 Grams (Appx.).

**MOUNTING POSITION:**  
Any.

# SAC5.0 thru SAC50

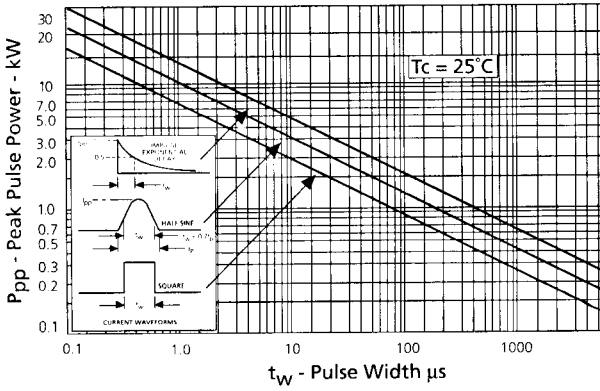


FIGURE 2

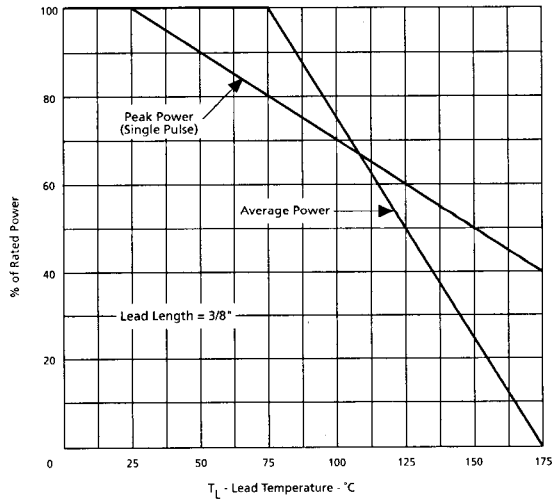


FIGURE 3

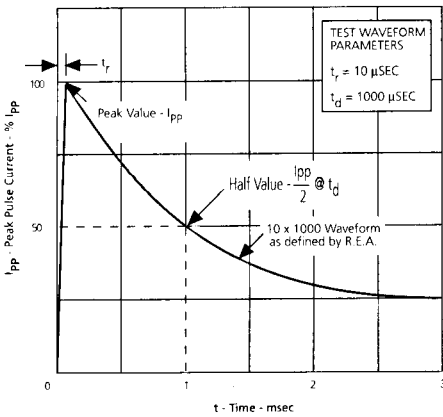


FIGURE 4  
Pulse Waveform

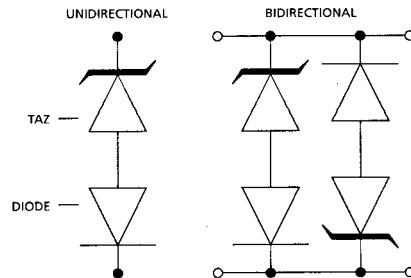


FIGURE 5