

1500 Watts 1N5908

TRANSIENT VOLTAGE SUPPRESSORS

MICROPROCESSOR PROTECTION

5.0 VOLTS

1500 WATT PEAK POWER 5.0 WATT STEADY STATE

The 1N5908 is a Transient Voltage Suppressor designed for the protection of 5.0 volt logic circuits. It protects TTL, ECL, DTL, MOS, and MSI integrated circuits requiring 5.0 volts or lower power supplies

MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25 °C ambient unless otherwise specified

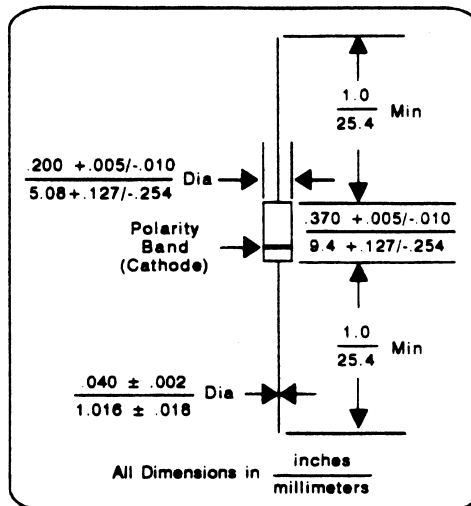
RATING	SYMBOL	VALUE	UNITS
Peak Power Dissipation at $T_A=25^{\circ}\text{C}$, $T_c=1\text{ms}$ (Note 1)	P_{PK}	1.5	kWatts
Steady State Power Dissipation at $T_c=75^{\circ}\text{C}$ Lead Lengths .375", (9.5 mm) (Note 2)	P_D	5.0	Watts
Clamping Time 0 Volts to V_{BR}	$t_{clamping}$	$< 1 \times 10^{-12}$	Sec
Forward Surge Rating 1/120 sec (Uni-Polar Only)	I_{FS}	200	Amps
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +175	°C

ELECTRICAL CHARACTERISTICS AT 25°C

PART NUMBER	REVERSE STAND-OFF VOLTAGE (Note 3) V_R Volts	MAXIMUM REVERSE LEAKAGE @ V_R I_R uA	MINIMUM BREAKDOWN VOLTAGE @ 1.0 mA V_{BR} Volts	MAXIMUM CLAMPING VOLTAGE @ $I_{PP}=30A$ V_C Volts	MAXIMUM CLAMPING VOLTAGE @ $I_{PP}=60A$ V_C Volts	MAXIMUM CLAMPING VOLTAGE @ $I_{PP}=120A$ V_C Volts
1N5908	5.0	300	6.0	7.6	8.0	8.5

NOTES TO CHARACTERISTICS

- Non-repetitive current pulse, per Fig.3 and derated above $T_A = 25^{\circ}\text{C}$ per Fig. 2
- Mounted on Copper Leaf area of 0.79 sq in (20 sq mm)
- V_{BR} measured after I_r applied for 300 us.
 I_r = Square Wave Pulse or equivalent.
- ICTE-5 not available as Bipolar



MECHANICAL DATA

Case: Molded plastic over passivated junctions

Terminals: Axial leads.

per

Polarity: Band Denotes Cathode

Mounting Position: Any

Weight: 0.053 ounce (1.5 grams)

FEATURES

- Designed for protection of T²L Logic Circuits
- 5.0 volt reverse stand-off
- Low clamping ratio

Clamping Factor: 1.33 @ Full rated power
 1.20 @ 50% rated power

Clamping Factor is the ratio of V_C to V_{BR}

Capacitance: 15,000 pf at 0 volts (typical)

