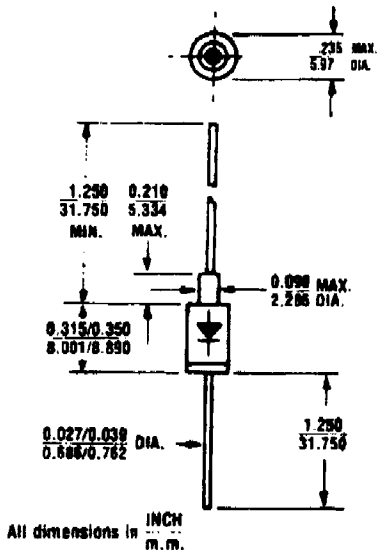
New Jersey Semi-Conductor Products, Inc.

20 STERN AVE.
SPRINGFIELD, NEW JERSEY 07081
U.S.A.

TELEPHONE: (973) 376-2922
(212) 227-6005
FAX: (973) 376-8960

1N5555 1N5556
1N5557 1N5558

1500 WATT UNIDIRECTIONAL TRANSIENT VOLTAGE SUPPRESSOR



FEATURES

- PROTECTS CIRCUITS FROM HARMFUL TRANSIENTS
- ABSORBS TRANSIENTS UP TO 1500 WATTS FOR 1MS
- CLAMPING RESPONSE TIME OF 1 PICO SECOND
- 1 WATT CONTINUOUS POWER DISSIPATION
- WORKING VOLTAGE RANGE FROM 30.5 V TO 175 V
- HERMETIC SEALED DO-13 METAL PACKAGE

DESCRIPTION

Transient Absorption Zeners are PN silicon junction zeners. Unlike the voltage regulation characteristics of a zener diode, the TAZ is designed for transient voltage suppression. Due to the TAZ's fast response time, protection level, and high discharge capability, its application area is very wide for protection against induced lighting, inductive and switching type transients, and can protect any kind of transient sensitive component/equipment, i.e., integrated circuits including secondary protection device in connection with SVP's in telecommunication applications. The use of TAZ devices in airborne avionics and electrical systems has proven to be highly effective.

MAXIMUM RATINGS

1500 Watts for 1 ms at Lead Temperature (TZ) 25°C

Operating and Storage Temperatures: -65° to +175°C
D.C. Power Dissipation: 1 Watt at TZ = +25°C 3/8" from body
Forward Surge Rating: 200 Amps for 8.3 ms at T_A = +25°C Duty Cycle of 4 pulses per minute maximum.

MECHANICAL CHARACTERISTICS

CASE: DO-13 (DO-202AA), welded, hermetically sealed metal and glass.

FINISH: All external surfaces are corrosion resistant and leads solderable.

THERMAL RESISTANCE: 100°C/W (Typical) junction to ambient.

POLARITY: Cathode connected to case and marked.

WEIGHT: 1.4 grams.

MOUNTING POSITION: Any.

ELECTRICAL CHARACTERISTICS

Jedec Type No.	Minimum Breakdown Voltage V_{BR} at I_T	Test Current (I_t)	Rated Standoff Voltage (V_{WM})	Maximum (RMS) Reverse Voltage V_{rwm}	Maximum Reverse Leakage Current (I_D) at V_{WM}	Maximum Peak Reverse Voltage (V_C Max.) at Ipp	Maximum Reverse Surge Current (I_{pp})	Maximum Temperature Coefficient of $V_{(BR)}$ α_{VZ} (T_A) -55°C to 100°C at 1.0 mAdc
	Vdc	mAdc	Vdc	V_{rms}	μAdc	V	A	%/°C
1N5555	33.0	1.0	30.5	21.5	5	47.5	32	+.093
1N5556	43.7	1.0	40.3	28.5	5	63.5	24	+.094
1N5557	54.0	1.0	49.3	34.5	5	78.5	19	+.096
1N5558	191.0	1.0	175.0	124.0	5	265.0	5.7	+.100

Quality Semi-Conductors