

# Silicon Zener Diode Series

## 1N746 thru 1N759, 1N4370A thru 1N4372A



### Features

- Available in JAN, JANTX and JANTXV per MIL-PRF-19500/127
- Double Plug Construction
- Metallurgically Bonded
- Also available in DO-213 MELF style package

### Maximum Ratings

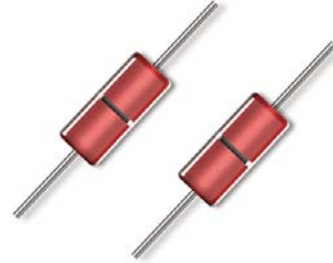
Operating Temperature: -65°C to +175°C

Storage Temperature: -65°C to +175°C

DC Power Dissipation: 500 mW @ +50°C

Power Derating: 4 mW / °C above +50°C

Forward Voltage @ 200mA: 1.1 volts maximum



### Electrical Specifications @ +25 °C (Unless Otherwise Specified)

JEDEC TYPE NUMBER  (NOTE 1)	NOMINAL ZENER VOLTAGE $V_Z @ I_{ZT}$	ZENER TEST CURRENT $I_{ZT}$ (NOTE 2)	MAXIMUM ZENER IMPEDANCE (NOTE 3) $Z_{ZT} @ I_{ZT}$	MAXIMUM REVERSE CURRENT $I_R @ V_R$		MAXIMUM ZENER CURRENT $I_{ZM}$
	VOLTS	mA	OHMS	$\mu A$	VOLTS	mA
1N4370A	2.4	20	30	100	1.0	155
1N4371A	2.7	20	30	60	1.0	140
1N4372A	3.0	20	29	30	1.0	125
1N746A	3.3	20	28	5	1.0	120
1N747A	3.6	20	24	3	1.0	110
1N748A	3.9	20	23	2	1.0	100
1N749A	4.3	20	22	2	1.0	90
1N750A	4.7	20	19	5	1.5	85
1N751A	5.1	20	17	5	2.0	75
1N752A	5.6	20	11	5	2.5	70
1N753A	6.2	20	7	5	3.5	65
1N754A	6.8	20	5	2	4.0	60
1N755A	7.5	20	6	2	5.0	55
1N756A	8.2	20	8	1	6.0	50
1N757A	9.1	20	10	1	7.0	45
1N758A	10.0	20	17	1	8.0	40
1N759A	12.0	20	30	1	9.0	35

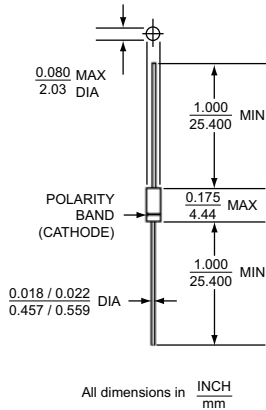
NOTE 1: Zener voltage tolerance on "A" suffix is  $\pm 5\%$ . No Suffix denotes  $\pm 10\%$  tolerance, "C" suffix denotes  $\pm 2\%$  tolerance and "D" suffix denotes  $\pm 1\%$  tolerance.

NOTE 2: Zener voltage is measured with the device junction in thermal equilibrium at an ambient temperature of  $25^\circ\text{C} \pm 3^\circ\text{C}$ .

NOTE 3: Zener impedance is derived by superimposing on  $I_{ZT}$  A 60Hz rms a.c. current equal to 10% of  $I_{ZT}$



## Outline Drawing



### LEADED DESIGN DATA

**CASE:** Hermetically sealed, DO – 35

**LEAD MATERIAL:** Copper clad steel

**LEAD FINISH:** Tin / Lead

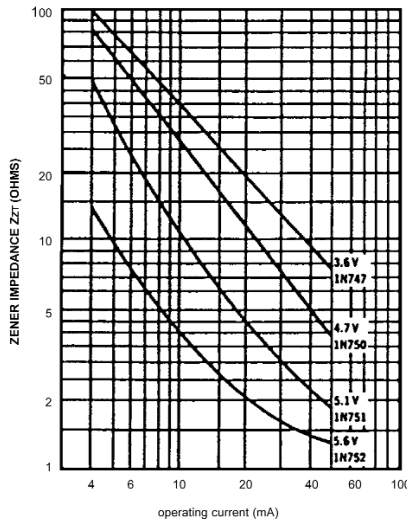
**THERMAL RESISTANCE:** ( $R_{\theta JEC}$ ): 250 °C/W maximum at L = .375 in

**THERMAL IMPEDANCE:** ( $Z_{\theta JX}$ ): 35° C/W maximum

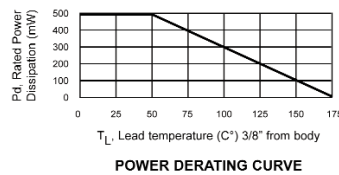
**POLARITY:** Diode to be operated with the banded (cathode) end positive

**MOUNTING POSITION:** Any

## Graphs



ZENER IMPEDANCE VS. OPERATING CURRENT



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