


**1N746 THRU 1N759 AND 1N4370 THRU 1N4372**  
**500mW SILICON ZENER DIODES**



**FEATURES**

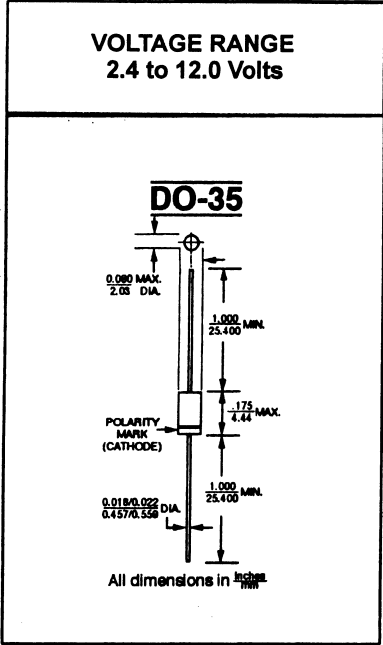
- \* Zener voltage 2.4V to 12.0V
- \* Metallurgically bonded device types

**MECHANICAL CHARACTERISTICS**

- \* CASE: Hermetically sealed glass case. DO - 35.
- \* FINISH: All external surfaces are corrosion resistant and leads solderable.
- \* THERMAL RESISTANCE: 200°C/W (Typical) junction to lead at 0.375 - inches from body. Metallurgically bonded DO - 35, exhibit less than 100°C/W at zero distance from body.
- \* POLARITY: banded end is cathode.
- \* WEIGHT: 0.2 grams
- \* MOUNTING POSITIONS: Any

**MAXIMUM RATINGS**

Junction and Storage temperatures: - 65°C to + 175°C  
 DC Power Dissipation: 500mW  
 Power Derating: 4.0mW/°C above 50°C  
 Forward Voltage @ 200mA: 1.5 Volts



**ELECTRICAL CHARACTERISTICS @ 25°C**

JEDEC TYPE NO. (Note 1)	NOMINAL ZENER VOLTAGE $V_Z @ I_{ZT}$ (Note 2)	ZENER TEST CURRENT $I_{ZT}$	MAXIMUM ZENER IMPEDANCE $Z_{ZT} @ I_{ZT}$ (Note 3)	MAXIMUM REVERSE CURRENT @ $V_R = 1$ VOLT		MAXIMUM ZENER CURRENT $I_{ZM}$ (Note 4)	TYPICAL TEMP COEFF. OF ZENER VOLTAGE $\alpha_{VZ}$
				@ 25°C	@ +150°C		
	VOLTS	mA	OHMS	$\mu A$	$\mu A$	mA	%/°C
1N4370 1N4371 1N4372	2.4 2.7 3.0	20 20 20	30 30 29	100 75 50	200 150 100	150 135 120	- 0.095 - 0.090 - 0.075
1N746 1N747 1N748	3.3 3.6 3.9	20 20 20	28 24 23	10 10 10	30 30 30	110 100 95	- 0.098 - 0.068 - 0.048
1N749 1N750 1N751 1N752	4.3 4.7 5.1 5.6	20 20 20 20	22 19 17 11	2 2 1 1	30 30 20 20	85 75 70 65	- 0.033 - 0.015 $\pm 0.010$ + 0.030
1N753 1N754 1N755 1N756	6.2 6.8 7.5 8.2	20 20 20 20	7 5 6 8	1 1 1 1	20 20 20 20	60 55 50 45	+ 0.049 + 0.063 + 0.057 + 0.080
1N757 1N758 1N759	9.1 10.0 12.0	20 20 20	10 17 30	1 1 1	20 20 20	40 35 30	+ 0.081 + 0.082 + 0.082

**NOTE 1**  
 Standard tolerance on JEDEC types shown is  $\pm 10\%$ . Suffix letter A denotes  $\pm 5\%$  tolerance; suffix letter C denotes  $\pm 2\%$ ; and suffix letter D denotes  $\pm 1\%$  tolerance.

**NOTE 2**  
 Voltage measurements to be performed 20 sec. after application of D. C. test current.

**NOTE 3**  
 Zener impedance derived by superimposing on  $I_{ZT}$ , a 60 cps, rms ac current equal to  $10\% I_{ZT}$  (2mA ac).

**NOTE 4**  
 Allowance has been made for the increase in  $V_Z$  due to  $Z_Z$  and for the increase in junction temperature as the unit approaches thermal equilibrium at the power dissipation of 400 mW.

