


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



FEATURES

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

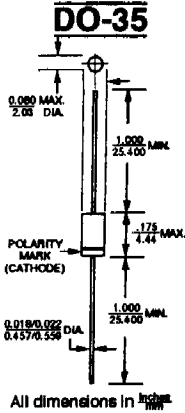
MECHANICAL CHARACTERISTICS

- * 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

VOLTAGE RANGE
2.4 to 12.0 Volts



All dimensions in $\frac{1}{1000}$ "

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 α_{VZ}
				@ 25°C	@ +150°C		
	VOLTS	mA	OHMS	μ A	μ A	mA	%/°C
1N4370 1N4371 1N4372	2.4 2.7 3.0	20 20 20	30 30 29	100 75 50	200 180 100	150 135 120	-0.065 -0.060 -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 -0.098 -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	95 75 70 65	-0.033 -0.015 ± 0.010 $+0.030$
1N753 1N754 1N755 1N756	6.2 6.8 7.5 8.2	20 20 20 20	7 6 6 8	1 1 1 1	20 20 20 20	80 55 50 45	$+0.049$ $+0.063$ $+0.067$ $+0.080$
1N757 1N758 1N759	9.1 10.0 12.0	20 20 20	10 17 30	1 1 1	20 20 20	40 35 30	$+0.061$ $+0.062$ $+0.062$

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.

