JGD

1N746 THRU 1N759 AND 1N4370 THRU 1N4372

500mW SILICON ZENER DIODES

VOLTAGE RANGE
2.4 to 12.0 Volts

FEATURES

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

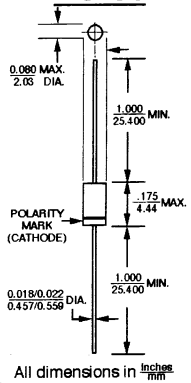
MECHANICAL CHARACTERISTICS

* CASE: Hermetically sealed glass case. DO – 35.
* FINISH: All external surfaces are corrosion resistant and leads solderable.
* THERMAL RESISTANCE: 200℃/W (Typical) junction to lead at 0.375 – inches from body. Metallurgically bonded DO – 35, exhibit less than 100℃/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℃ to + 175℃
DC Power Dissipation: 500mW
Power Derating: 4.0mW/℃ above 50℃
Forward Voltage @ 200mA: 1.5 Volts

DO-35



All dimensions in inches / mm

ELECTRICAL CHARCTERISTICS @ 25℃

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)	MAXIMOM REVERSE CURRENT @ V_R = 1VOLT		MAXIMUM ZENER CURRENT I_{ZM} (Note 4)	TYPICAL TEMP COEFF. OF ZENER VOLTAGE α_{VZ}
				@25℃	@ + 150℃		
	VOLTS	mA	OHMS	μA	μA	mA	%/℃
1N4370	2.4	20	30	100	200	150	– 0.085
1N4371	2.7	20	30	75	150	135	– 0.080
1N4372	3.0	20	29	50	100	120	– 0.075
1N746	3.3	20	28	10	30	110	– 0.066
1N747	3.6	20	24	10	30	100	– 0.058
1N748	3.9	20	23	10	30	95	– 0.046
1N749	4.3	20	22	2	30	85	– 0.033
1N750	4.7	20	19	2	30	75	– 0.015
1N751	5.1	20	17	1	20	70	± 0.010
1N752	5.6	20	11	1	20	65	+ 0.030
1N753	6.2	20	7	1	20	60	+ 0.049
1N754	6.8	20	5	1	20	55	+ 0.053
1N755	7.5	20	6	1	20	50	+ 0.057
1N756	8.2	20	8	1	20	45	+ 0.060
1N757	9.1	20	10	1	20	40	+ 0.061
1N758	10.0	20	17	1	20	35	+ 0.062
1N759	12.0	20	30	1	20	30	+ 0.062

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

NOTE2
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.

* JEDEC Registered Data

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RATINGS AND CHARACTERISTIC CURVES
(1N746 THRU 1N759A AND 1N4370 THRU 1N4372A)

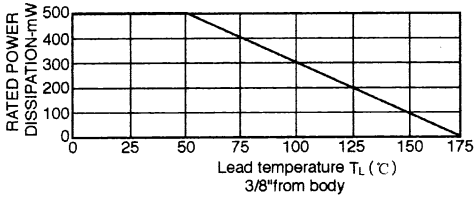

FIGURE 1

POWER DERATING CURVE

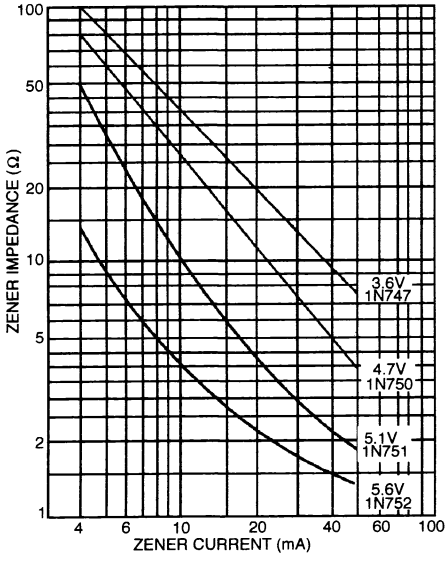

FIGURE 2

ZENER IMPEDANCE VS ZENER CURRENT

(TYPICAL)

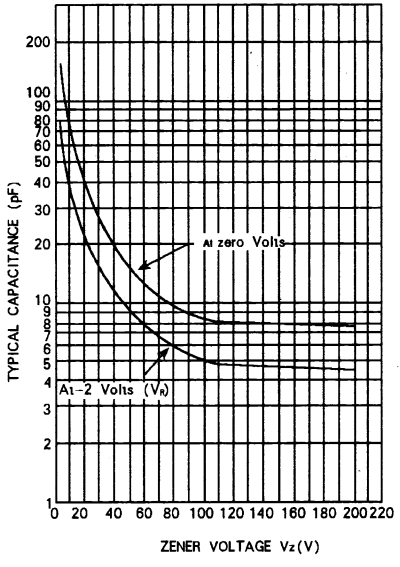

FIGURE 3

CAPACITANCE VS. ZENER VOLTAGE

(TYPICAL)