ALSO AVAILABLE IN SURFACE MOUNT

Microsemi Corp.
The diode experts

SCOTTSDALE, AZ
For more information call:
(602) 941-6300

1N759A, -1 and 1N4370 thru 1N4372A, -1 DO-35

1% and 2% VERSIONS
"C" and "D" AVAILABLE

SILICON
500 mW
ZENER DIODES

FEATURES

- ZENER VOLTAGE 2.4V to 12.0V
- AVAILABLE IN JAN, JANTX AND JANTXV-1 QUALIFICATIONS TO MIL-S-19500/127. DIE ALSO AVAILABLE AS JANHC FOR HYBRIDS.
- METALLURGICALLY BONDED DEVICE TYPES

MAXIMUM RATINGS

Junction and Storage Temperatures: -65°C to +175°C
DC Power Dissipation: 500 mW
Power Derating: 4.0 mW/°C above 50 °C
Forward Voltage @ 200 mA: 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 (ϵ_{VZ})
				@ 25°C	@ +150°C		
	VOLTS	mA	OHMS	μA	μA	mA	%/°C
1N4370	2.4	20	30	100	200	150	−.085
1N4371	2.7	20	30	75	150	135	−.080
1N4372	3.0	20	29	50	100	120	−.075
1N746	3.3	20	28	10	30	110	−.066
1N747	3.6	20	24	10	30	100	−.058
1N748	3.9	20	23	10	30	95	−.046
1N749	4.3	20	22	2	30	85	−.033
1N750	4.7	20	19	2	30	75	−.015
1N751	5.1	20	17	1	20	70	±.010
1N752	5.6	20	11	1	20	65	+.030
1N753	6.2	20	7	.1	20	60	+.049
1N754	6.8	20	5	.1	20	55	+.053
1N755	7.5	20	6	.1	20	50	+.057
1N756	8.2	20	8	.1	20	45	+.060
1N757	9.1	20	10	.1	20	40	+.061
1N758	10.0	20	17	.1	20	35	+.062
1N759	12.0	20	30	.1	20	30	+.062

*JEDEC Registered Data

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.

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} (2 mA 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.

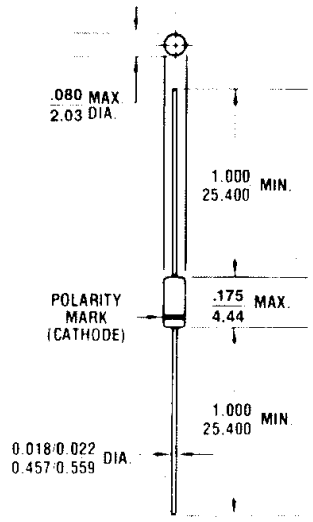

FIGURE 1

All dimensions in INCH / m.m.

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's exhibit less than 100 °C/W at zero distance from body.

POLARITY: Diode to be operated with the banded end positive with respect to the opposite end.

WEIGHT: 0.2 grams.

MOUNTING POSITIONS: Any.

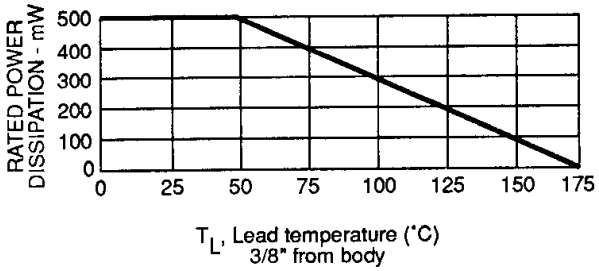

FIGURE 2 POWER DERATING CURVE

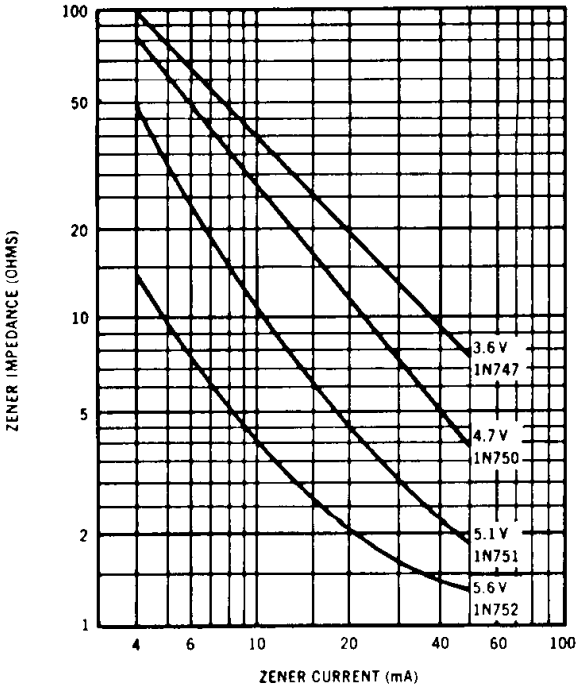

FIGURE 3

ZENER IMPEDANCE VS ZENER CURRENT
(TYPICAL)

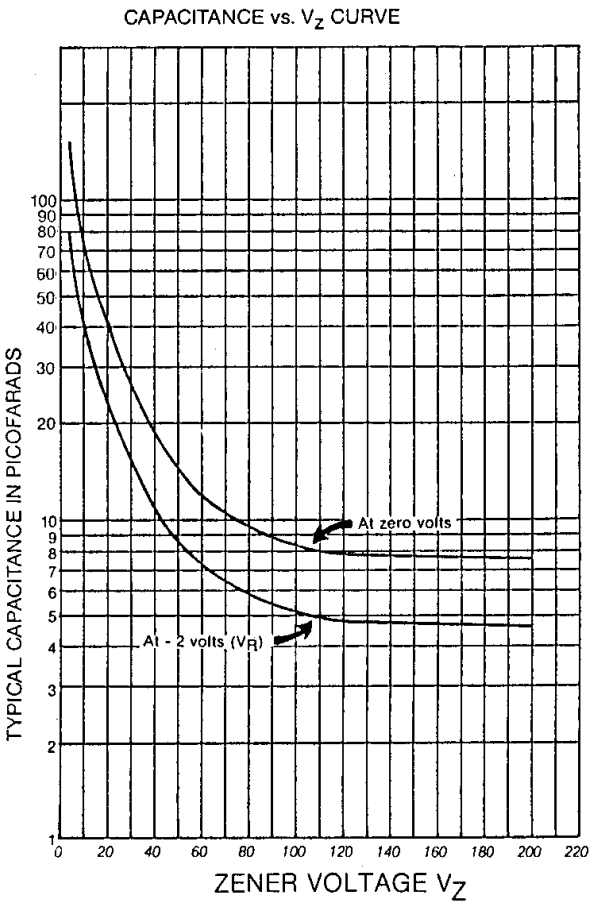

FIGURE 4

CAPACITANCE VS. ZENER VOLTAGE
(TYPICAL)