- 1N3154-1 THRU 1N3157-1 AVAILABLE IN JAN, JANTX, JANTXV AND JANS PER MIL-PRF-19500/158
- 8.4 V0LT NOMINAL ZENER VOLTAGE
- TEMPERATURE COMPENSATED ZENER REFERENCE DIODES
- METALLURGICALLY BONDED

1N3154 thru 1N3157A and 1N3154-1 thru 1N3157A-1

MAXIMUM RATINGS

Operating Temperature: -65°C to +175°C
Storage Temperature: -65°C to +175°C
DC Power Dissipation: 500mW @ +50°C
Power Derating: 4 mW / °C above +50°C

REVERSE LEAKAGE CURRENT

I_R = 10μA @ 25°C & V_R = 5.5Vdc

ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise speci½ed.

JEDEC TYPE NUMBER	ZENER VOLTAGE V_z @ I_{ZT}	ZENER TEST CURRENT I_{ZT}	MAXIMUM ZENER IMPEDANCE ZZT (Note 1)	VOLTAGE TEMPERATURE STABILITY $^3V_{ZT}$ MAXIMUM (Note 2)	TEMPERATURE RANGE	EFFECTIVE TEMPERATURE COEFFICIENT
	VOLTS	mA	OHMS	mV	°C	% / °C
1N3154	8.00—8.80	10	15	130	-55 to +100	.01
1N3154A	8.00—8.80	10	15	172	-55 to +150	.01
1N3155	8.00—8.80	10	15	65	-55 to +100	.005
1N3155A	8.00—8.80	10	15	86	-55 to +150	.005
1N3156	8.00—8.80	10	15	26	-55 to +100	.002
1N3156A	8.00—8.80	10	15	34	-55 to +150	.002
1N3157	8.00—8.80	10	15	13	-55 to +100	.001
1N3157A	8.00—8.80	10	15	17	-55 to +150	.001

NOTE 1 Zener impedance is derived by superimposing on I_{ZT} A 60Hz rms a.c. current equal to 10% of I_{ZT}.

NOTE 2 The maximum allowable change observed over the entire temperature range i.e., the diode voltage will not exceed the speci½ed mV at any discrete temperature between the established limits, per JEDEC standard No.5.

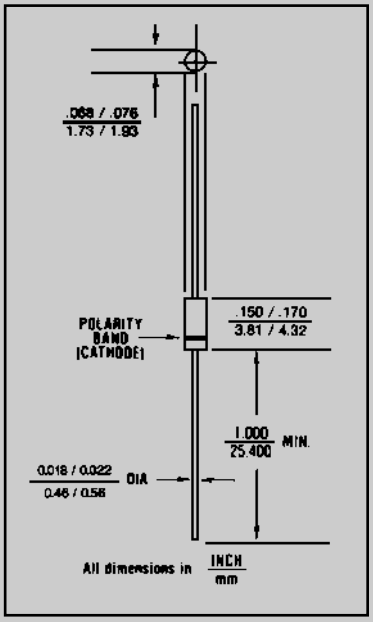

FIGURE 1

DESIGN DATA

CASE: Hermetically sealed glass case. DO – 35 outline.

LEAD MATERIAL: Copper clad steel.

LEAD FINISH: Tin / Lead

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

MOUNTING POSITION: ANY.

Microsemi

6 LAKE STREET, LAWRENCE, MASSACHUSETTS 01841
PHONE (978) 620-2600 FAX (978) 689-0803
WEBSITE: http://www.microsemi.com

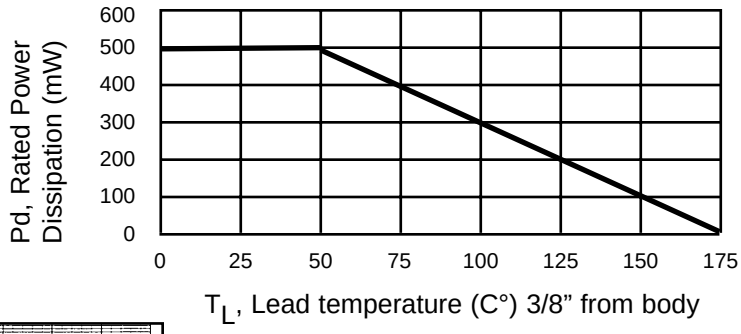

FIGURE 2
POWER DERATING CURVE

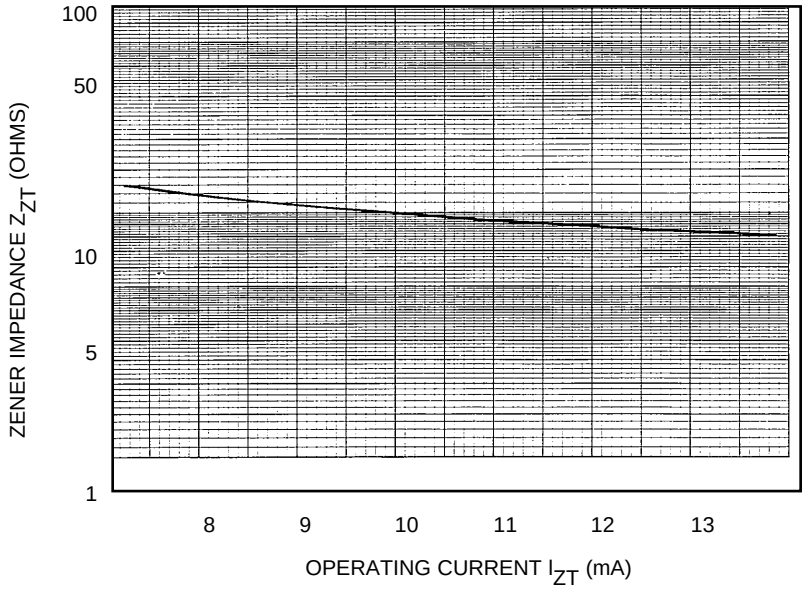

FIGURE 3
ZENER IMPEDANCE VS. OPERATING CURRENT

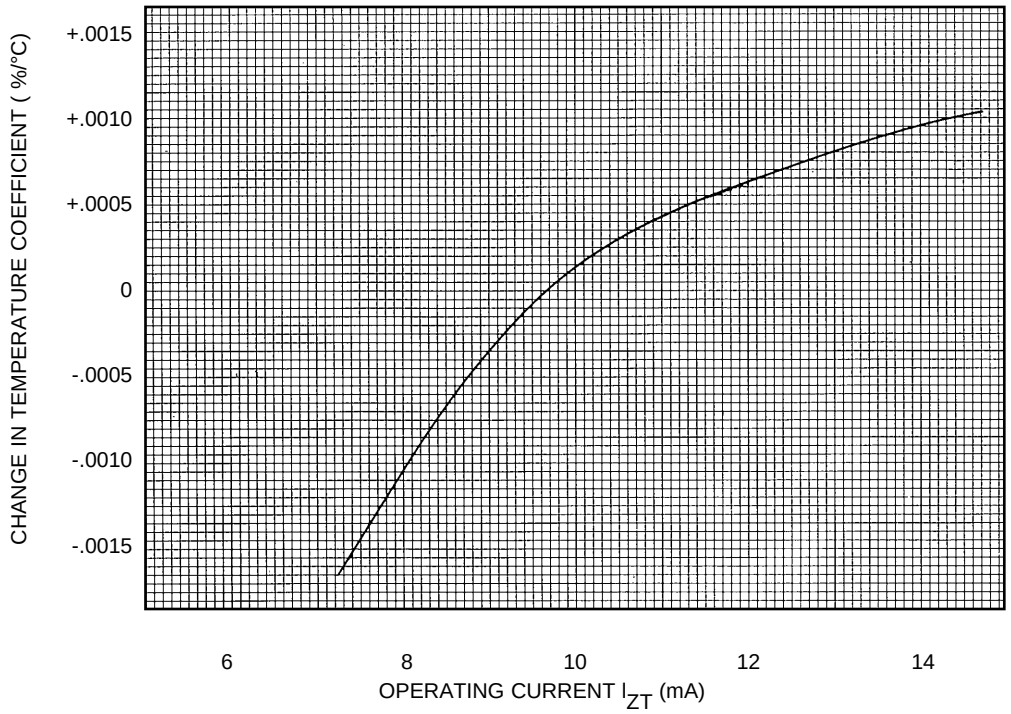

FIGURE 4
TYPICAL CHANGE OF TEMPERATURE COEFFICIENT WITH CHANGE IN OPERATING CURRENT