



**International
Semiconductor, Inc.**

**TEMPERATURE COMPENSATED ZENER REFERENCE DIODES
9.0 VOLT NOMINAL ZENER VOLTAGE**

MAXIMUM RATINGS *

Operating Temperature: -55 C to +200 C
Storage Temperature: -55 C to +200 C
DC Power Dissipation: 500 mW at 50 C
Power Derating: 3.33 mW/C above 50 C

*** ELECTRICAL CHARACTERISTICS @ 25 C, unless otherwise specified**

JEDEC TYPE NUMBERS	ZENER VOLTAGE V _Z @ I _Z	ZENER TEST CURRENT I _Z	MAXIMUM ZENER IMPEDANCE (Note 1) Z _Z	VOLTAGE TEMPERATURE STABILITY (Note 2) ΔV_Z MAXIMUM	TEMPERATURE RANGE	EFFECTIVE TEMPERATURE COEFFICIENT
	VOLTS	mA	OHMS	mV	DEGREES CENTIGRADE	%/C
1N935	8.88-9.46	7.5	20	67	0 to +75	.01
1N936A	8.66-9.46	7.5	20	139	-55 to +100	.01
1N936B	8.66-9.46	7.5	20	184	-55 to +150	.01
1N936	8.66-9.46	7.5	20	34	0 to +75	.006
1N936A	8.66-9.46	7.5	20	70	-55 to +100	.006
1N936B	8.66-9.46	7.5	20	92	-55 to +150	.006
1N937	8.66-9.46	7.5	20	13	0 to +75	.002
1N937A	8.66-9.46	7.5	20	28	-55 to +100	.002
1N937B	8.66-9.46	7.5	20	37	-55 to +150	.002
1N938	8.66-9.46	7.5	20	6.7	0 to +75	.001
1N938A	8.66-9.46	7.5	20	13.9	-55 to +100	.001
1N938B	8.66-9.46	7.5	20	18	-55 to +150	.001
1N939	8.66-9.46	7.5	20	3.4	0 to +75	.0006
1N939A	8.66-9.46	7.5	20	7	-55 to +100	.0006
1N939B	8.66-9.46	7.5	20	9	-55 to +150	.0006

* JEDEC Registered Data.

NOTE 1 Zener impedance is derived by superimposing on I_Z a 60 Hz rms a.c. current equal to 10% of I_Z

NOTE 2 The maximum allowable change observed over the entire temperature range i.e., the diode voltage will not exceed the specified mV at any discrete temperature between the established limits.

1N935 thru 1N939B

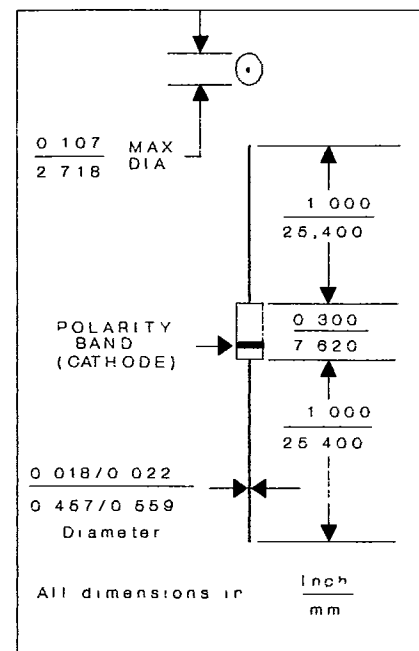


FIGURE 1

DESIGN DATA

CASE: Hermetically sealed glass case, DO-7 Outline.

LEAD MATERIAL: Copper clad steel

LEAD FINISH: Tin Plate

THERMAL RESISTANCE: 250 C/w (Typical); junction to ambient.

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

WEIGHT: 0.2 Grams

MOUNTING POSITION: Any

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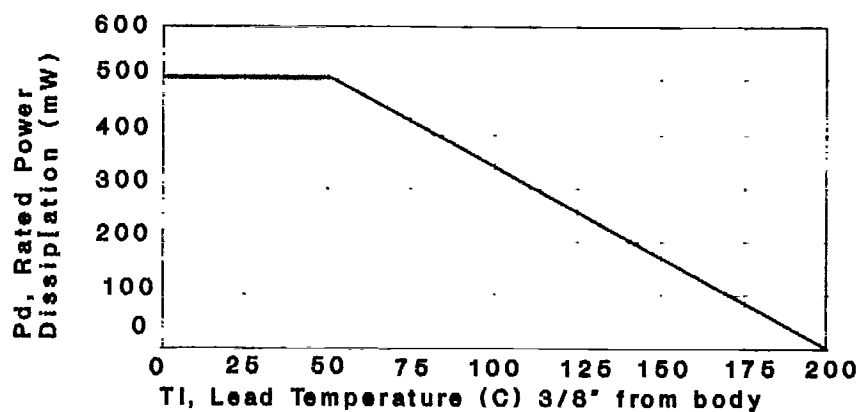
1N935
thru
1N939B

Figure 2
POWER DERATING CURVE

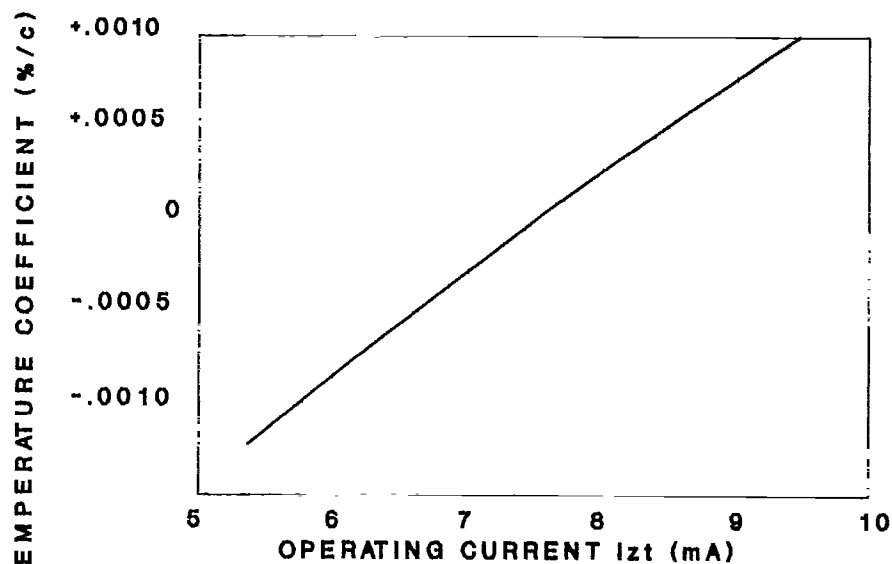


Figure 3
**TEMPERATURE COEFFICIENT
VERSUS OPERATING CURRENT**

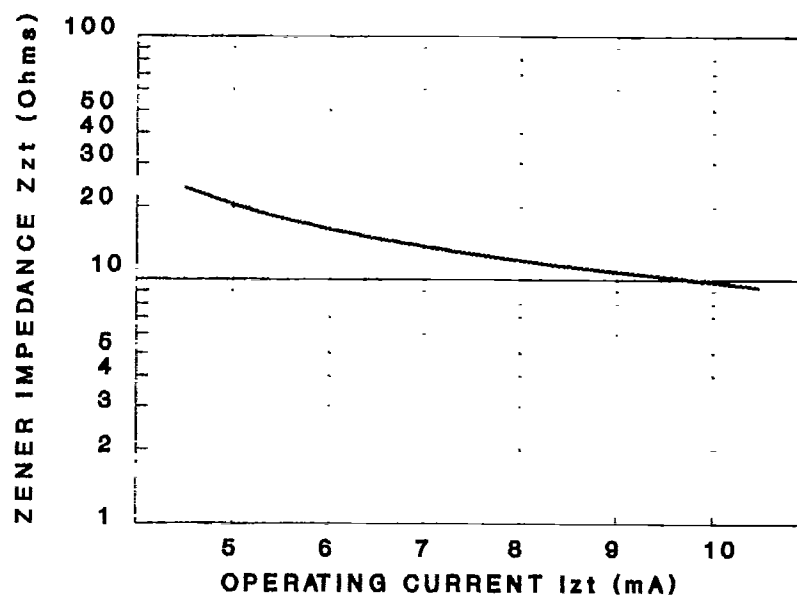


Figure 4
**ZENER IMPEDANCE
VERSUS OPERATING CURRENT**