

- 1N941B, 1N943B, 1N944B AND 1N945B AVAILABLE IN JAN, JANTX AND JANTXV PER MIL-PRF-19500/157
- 1N941B-1, 1N943B-1, 1N944B-1 AND 1N945B-1 AVAILABLE IN JAN, JANTX, JANTXV AND JANS PER MIL-PRF-19500/157
- 11.7 VOLT NOMINAL ZENER VOLTAGE
- TEMPERATURE COMPENSATED ZENER REFERENCE DIODES
- METALLURGICALLY BONDED

1N941 thru 1N945B  
and  
1N941B-1 thru 1N945B-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

$I_R = 15\mu A @ 25^\circ C \text{ \& } V_R = 8 \text{ Vdc}$

ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified.

JEDEC TYPE NUMBER	ZENER VOLTAGE $V_Z @ I_{ZT}$	ZENER TEST CURRENT $I_{ZT}$	MAXIMUM ZENER IMPEDANCE $Z_{ZT}$	VOLTAGE TEMPERATURE STABILITY $\Delta V_{ZT}$ MAXIMUM (Note 2)	TEMPERATURE RANGE	EFFECTIVE TEMPERATURE COEFFICIENT
	VOLTS	mA	OHMS	mV	°C	% / °C
1N941	11.12—12.28	7.5	30	88	0 to +75	0.01
1N941A	11.12—12.28	7.5	30	181	-55 to +100	0.01
1N941B	11.12—12.28	7.5	30	239	-55 to +150	0.01
1N942	11.12—12.28	7.5	30	44	0 to +75	0.005
1N942A	11.12—12.28	7.5	30	90	-55 to +100	0.005
1N942B	11.12—12.28	7.5	30	120	-55 to +150	0.005
1N943	11.12—12.28	7.5	30	18	0 to +75	0.002
1N943A	11.12—12.28	7.5	30	36	-55 to +100	0.002
1N943B	11.12—12.28	7.5	30	47	-55 to +150	0.002
1N944	11.12—12.28	7.5	30	9	0 to +75	0.001
1N944A	11.12—12.28	7.5	30	18	-55 to +100	0.001
1N944B	11.12—12.28	7.5	30	24	-55 to +150	0.001
1N945	11.12—12.28	7.5	30	4	0 to +75	0.0005
1N945A	11.12—12.28	7.5	30	9	-55 to +150	0.0005
1N945B	11.12—12.28	7.5	30	12	-55 to +150	0.0005

**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 specified mV at any discrete temperature between the established limits, per JEDEC standard No.5.

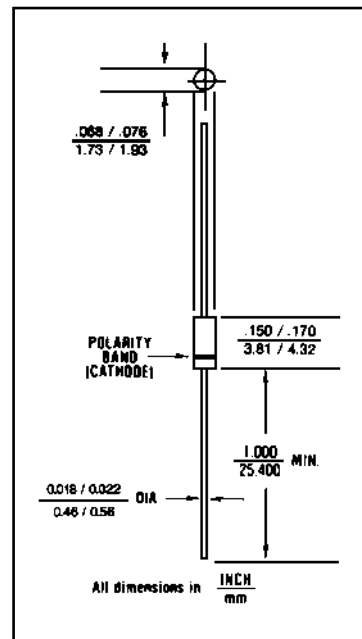


FIGURE 1

## 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.

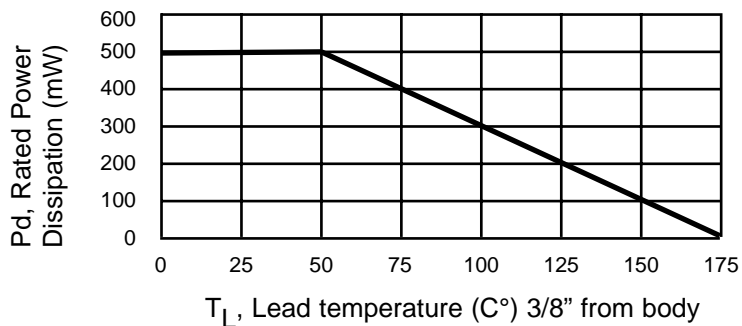
**MOUNTING POSITION:** Any.



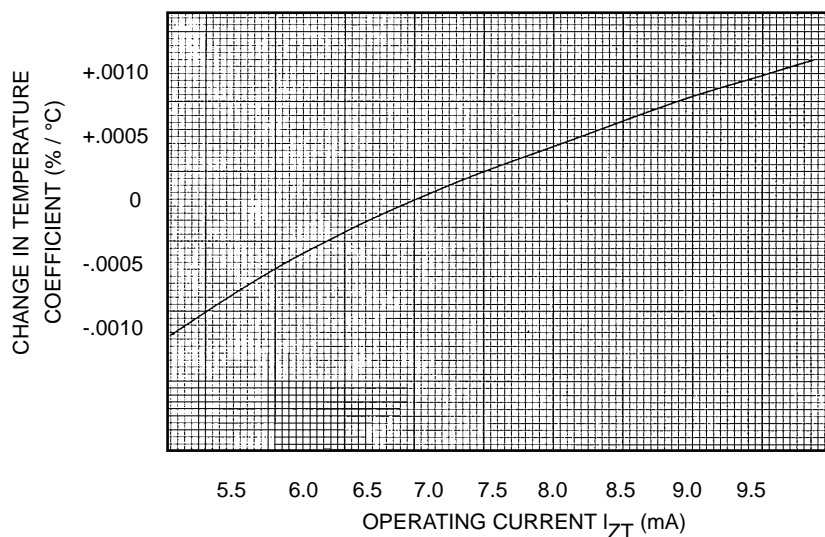
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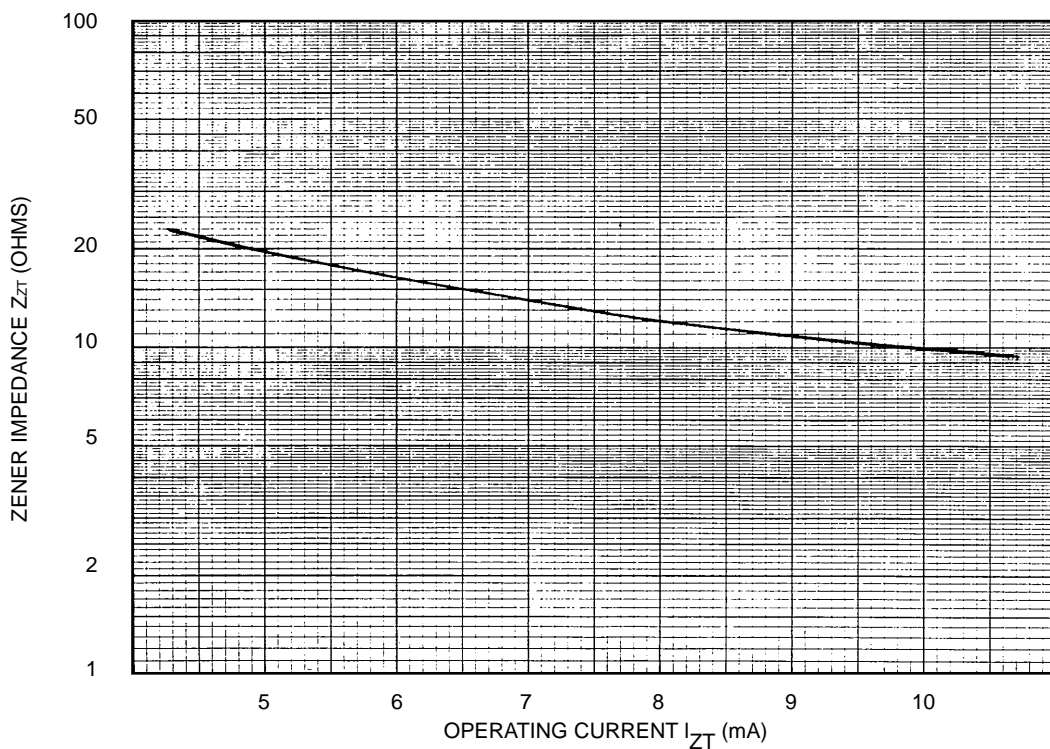
# 1N941 thru 1N945B INCLUDING -1 VERSIONS



**FIGURE 2  
POWER DERATING CURVE**



**FIGURE 3  
TYPICAL CHANGE OF TEMPERATURE COEFFICIENT  
WITH CHANGE IN OPERATING CURRENT**



**FIGURE 4  
ZENER IMPEDANCE VS. OPERATING CURRENT**