

- 19.2 VOLT NOMINAL ZENER VOLTAGE  $\pm 5\%$
- TEMPERATURE COMPENSATED ZENER REFERENCE DIODES
- LOW NOISE
- METALLURGICALLY BONDED
- DOUBLE PLUG CONSTRUCTION

1N4916  
thru  
1N4932A

### MAXIMUM RATINGS

Operating Temperature:  $-65^{\circ}\text{C}$  to  $+175^{\circ}\text{C}$   
Storage Temperature:  $-65^{\circ}\text{C}$  to  $+175^{\circ}\text{C}$   
DC Power Dissipation: 500mW @  $+50^{\circ}\text{C}$   
Power Derating: 4 mW /  $^{\circ}\text{C}$  above  $+50^{\circ}\text{C}$

### REVERSE LEAKAGE CURRENT

$I_R = 15 \mu\text{A}$  @  $25^{\circ}\text{C}$  &  $V_R = 12\text{Vdc}$

ELECTRICAL CHARACTERISTICS @  $25^{\circ}\text{C}$ , unless otherwise specified.

JEDEC TYPE NUMBER	TEST CURRENT $I_{ZT}$ (Note 3)	VOLTAGE TEMPERATURE STABILITY $\Delta V_{ZT}$ (Note 2)	TEMPERATURE RANGE	EFFECTIVE TEMPERATURE COEFFICIENT	MAXIMUM DYNAMIC IMPEDANCE $Z_{ZT}$ (Note 1)	MAXIMUM NOISE DENSITY $N_D$
	mA	mV	$^{\circ}\text{C}$	$\%/^{\circ}\text{C}$	OHMS	$\mu\text{V}/\sqrt{\text{Hz}}$
1N4916	0.5	144	+25 to +100	0.01	600	1.0
1N4916A	0.5	298	-55 to +100	0.01	600	1.0
1N4917	0.5	72	+25 to +100	0.005	600	1.0
1N4917A	0.5	149	-55 to +100	0.005	600	1.0
1N4918	0.5	29	+25 to +100	0.002	600	1.0
1N4918A	0.5	60	-55 to +100	0.002	600	1.0
1N4919	1.0	144	+25 to +100	0.01	300	0.5
1N4919A	1.0	298	-55 to +100	0.01	300	0.5
1N4920	1.0	72	+25 to +100	0.005	300	0.5
1N4920A	1.0	149	-55 to +100	0.005	300	0.5
1N4921	1.0	29	+25 to +100	0.002	300	0.5
1N4921A	1.0	60	-55 to +100	0.002	300	0.5
1N4922	2.0	144	+25 to +100	0.01	150	0.25
1N4922A	2.0	298	-55 to +100	0.01	150	0.25
1N4923	2.0	72	+25 to +100	0.005	150	0.25
1N4923A	2.0	149	-55 to +100	0.005	150	0.25
1N4924	2.0	29	+25 to +100	0.002	150	0.25
1N4924A	2.0	60	-55 to +100	0.002	150	0.25
1N4925	4.0	144	+25 to +100	0.01	75	0.22
1N4925A	4.0	298	-55 to +100	0.01	75	0.22
1N4926	4.0	72	+25 to +100	0.005	75	0.22
1N4926A	4.0	149	-55 to +100	0.005	75	0.22
1N4927	4.0	29	+25 to +100	0.002	75	0.22
1N4927A	4.0	60	-55 to +100	0.002	75	0.22
1N4928	4.0	14	+25 to +100	0.001	75	0.22
1N4928A	4.0	30	-55 to +100	0.001	75	0.22
1N4929	7.5	144	+25 to +100	0.01	36	0.20
1N4929A	7.5	298	-55 to +100	0.01	36	0.20
1N4930	7.5	72	+25 to +100	0.005	36	0.20
1N4930A	7.5	149	-55 to +100	0.005	36	0.20
1N4931	7.5	29	+25 to +100	0.002	36	0.20
1N4931A	7.5	60	-55 to +100	0.002	36	0.20
1N4932	7.5	14	+25 to +100	0.001	36	0.20
1N4932A	7.5	30	-55 to +100	0.001	36	0.20

**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.

**NOTE 3** Zener voltage range equals 19.2 volts  $\pm 5\%$ .

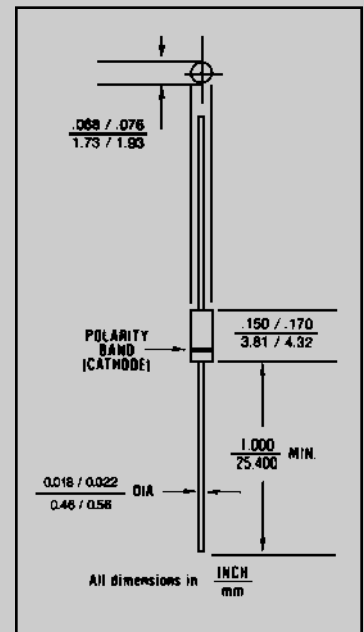


FIGURE 1

### 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.



# 1N4916 thru 1N4932A

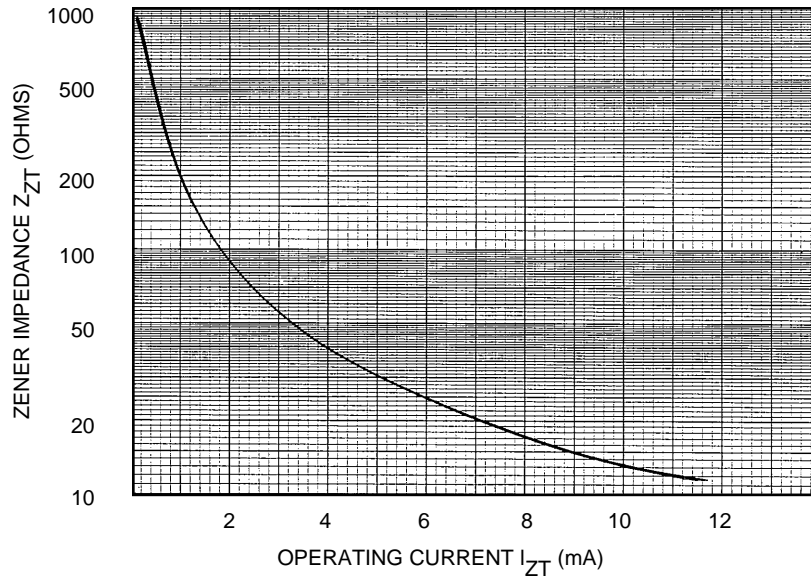
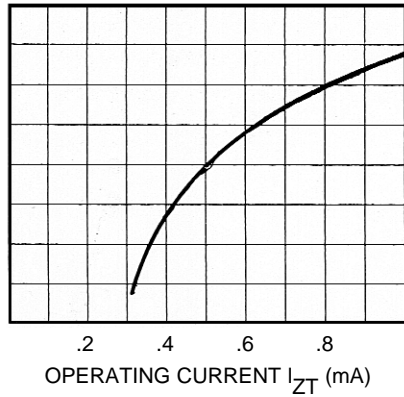


FIGURE 2

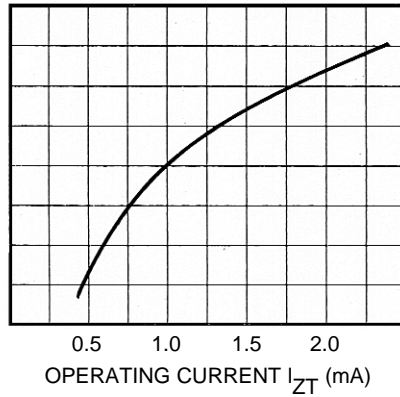
ZENER IMPEDANCE VS. OPERATING CURRENT

CHANGE IN TEMPERATURE COEFFICIENT (%/°C)

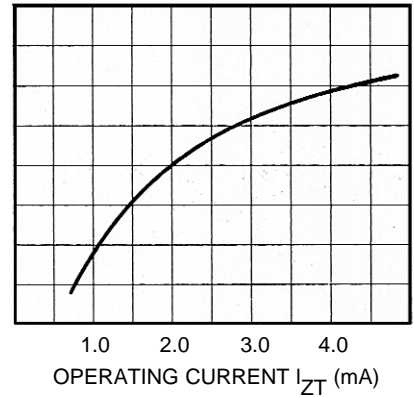
1N4916—1N4918



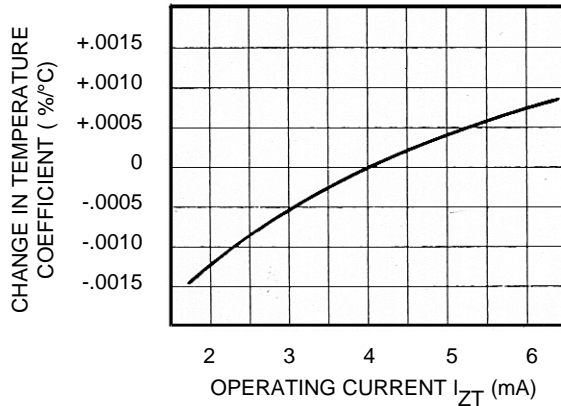
1N4919—1N4921



1N4922—1N4924



1N4925—1N4928



1N4929—1N4932

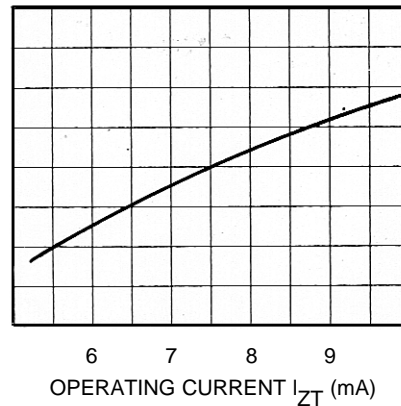


FIGURE 3

TYPICAL CHANGE OF TEMPERATURE COEFFICIENT WITH CHANGE IN OPERATING CURRENT