

- 1N821-1, 1N823-1, 1N825-1, 1N827-1 AND 1N829-1 AVAILABLE IN JAN, JANTX, JANTXV AND JANS PER MIL-PRF-19500/159
- TEMPERATURE COMPENSATED ZENER REFERENCE DIODES
- METALLURGICALLY BONDED
- DOUBLE PLUG CONSTRUCTION

1N821 thru 1N829A
and
1N821-1 thru 1N829-1

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

$I_R = 2\mu A @ 25^\circ C \text{ \& } V_R = 3 \text{ Vdc}$

ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified.

JEDEC TYPE NUMBER	ZENER VOLTAGE	ZENER TEST CURRENT	MAXIMUM ZENER IMPEDANCE	VOLTAGE TEMPERATURE STABILITY	EFFECTIVE TEMPERATURE COEFFICIENT
	$V_Z @ I_{ZT}$	I_{ZT}	(Note 1) Z_{ZT}	ΔV_{ZT} -55° to +100° (Note 2)	
	VOLTS	mA	OHMS	mV	% / °C
1N821	5.9-6.5	7.5	15	96	0.01
1N821A	5.9-6.5	7.5	10	96	0.01
1N822 †	5.9-6.5	7.5	15	96	0.01
1N823	5.9-6.5	7.5	15	48	0.005
1N823A	5.9-6.5	7.5	10	48	0.005
1N824 †	5.9-6.5	7.5	15	48	0.005
1N825	5.9-6.5	7.5	15	19	0.002
1N825A	5.9-6.5	7.5	10	19	0.002
1N826	6.2-6.9	7.5	15	20	0.002
1N827	5.9-6.5	7.5	15	9	0.001
1N827A	5.9-6.5	7.5	10	9	0.001
1N828	6.2-6.9	7.5	15	10	0.001
1N829	5.9-6.5	7.5	15	5	0.0005
1N829A	5.9-6.5	7.5	10	5	0.0005

† Double Anode: Electrical Specifications Apply Under Both Bias Polarities.

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.

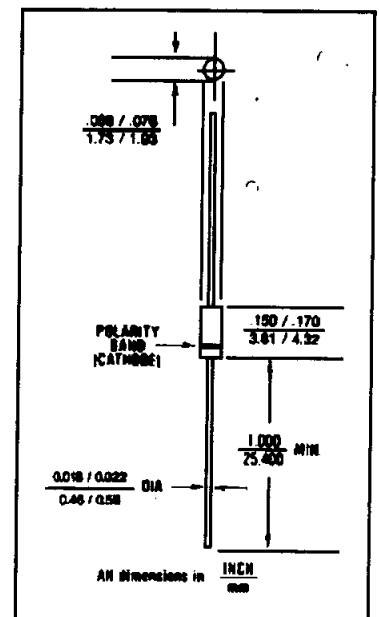


FIGURE 1

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.