

Temperature Compensated Zener Reference Diode Series



1N821 thru 1N829A & 1N821-1 thru 1N829-1

Features

- 1N821-1, 1N823-1, 1N825-1, 1N827-1 and 1N829-1 available in JAN, JANTX, JANTXV, JANS
- Metallurgically Bonded, Double Plug Construction

Maximum Ratings

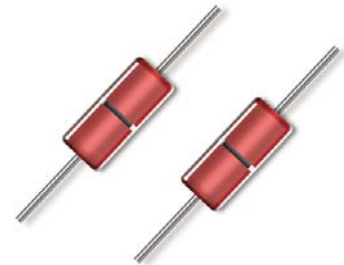
Operating & Storage Temperature: -65°C to +175°C

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 Specifications @ +25 °C (Unless Otherwise Specified)

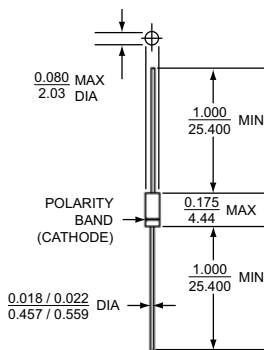
JEDEC TYPE Number	Normal Zener Voltage $V_Z @ I_{ZT}$	Zener Test Current I_{ZT}	Maximum Zener Impedance (Note 1) Z_{ZT}	Voltage Temperature Stability ${}^3V_{ZT}$ -55° to +100°C (Note 2)	Effective Temperature Coefficient
(Note 1)	Volts	mA	Ohms	mV	%/°C
1N821	5.9–6.5	7.5	15	96	0.01
1N821A	5.9–6.5	7.5	10	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.

Outline Drawing



All dimensions in INCH mm

LEADED DESIGN DATA

CASE: Hermetically sealed, DO – 35

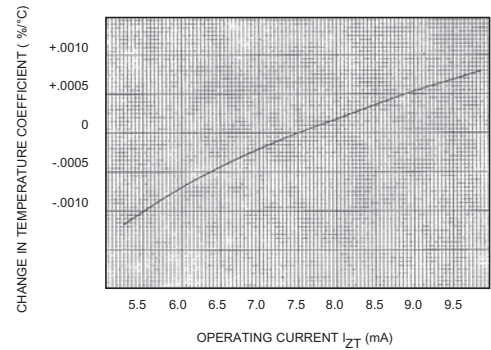
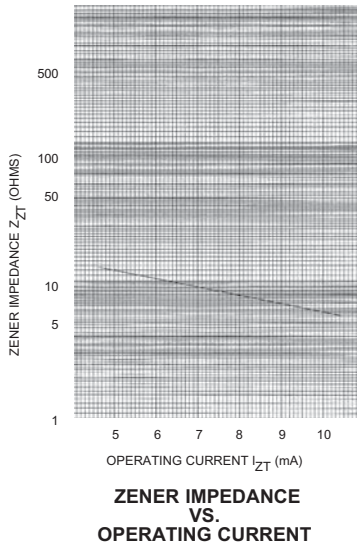
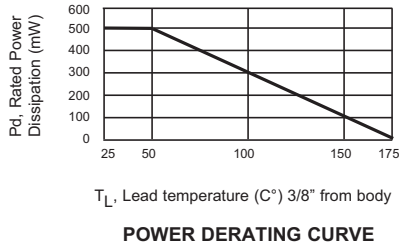
LEAD MATERIAL: Copper clad steel

LEAD FINISH: Tin / Lead

POLARITY: Cathode end is banded.

MOUNTING POSITION: Any





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