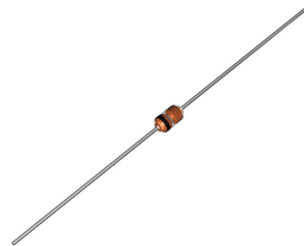


1N821 thru 1N829A

Temperature Compensated Zener Diodes

Features

- Temperature compensated zener diodes
- Metallurgically bonded
- Double plug construction



Maximum Ratings

($T_A = 25^\circ\text{C}$ unless otherwise noted)

Package: DO-35

Parameter	Symbol	Conditions	Ratings	Unit
Operating Temperature	T_J		-65 to +175	$^\circ\text{C}$
Storage Temperature	T_{STG}		-65 to +175	$^\circ\text{C}$
DC Power Dissipation	P_{TOT}	$T_A = 50^\circ\text{C}$	500	mW
Power Derating		$T_A > 50^\circ\text{C}$	4.0	mW/ $^\circ\text{C}$

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

MPN	Zener Voltage $V_Z @ I_{ZT}$	Zener Test Current I_{ZT}	Maximum Zener Impedance (Note 1) Z_{ZT}	Voltage Temperature Stability ΔV_{ZT} -55 $^\circ\text{C}$ to +100 $^\circ\text{C}$ (Note 2)	Effective Temperature Coefficient
	V	mA	Ω	mV	% / $^\circ\text{C}$
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

NOTE 1 Zener impedance is derived by superimposing on I_{ZT} A 60Hz rms a.c. current equa 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.

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

1N821 thru 1N829A

Temperature Compensated Zener Diodes

Ratings and Characteristics Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

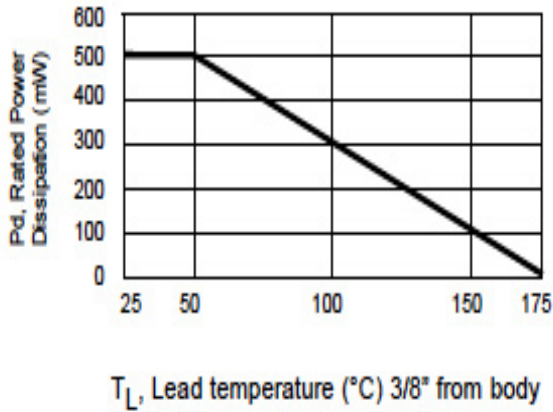


Figure 1. Power Derating Curve

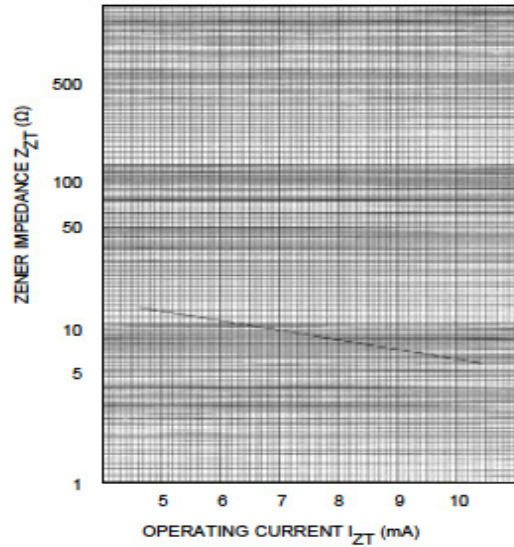


Figure 2. Zener Impedance vs. Operating Current

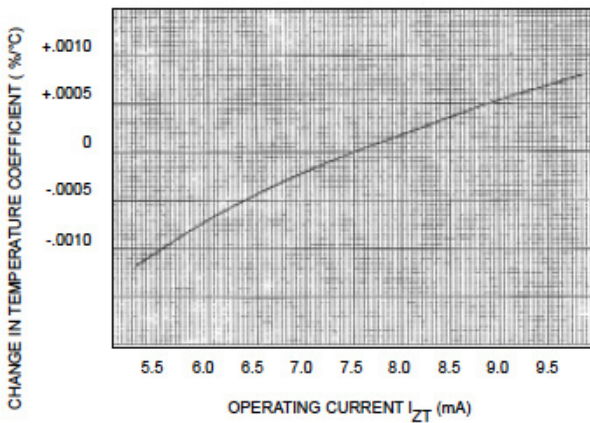
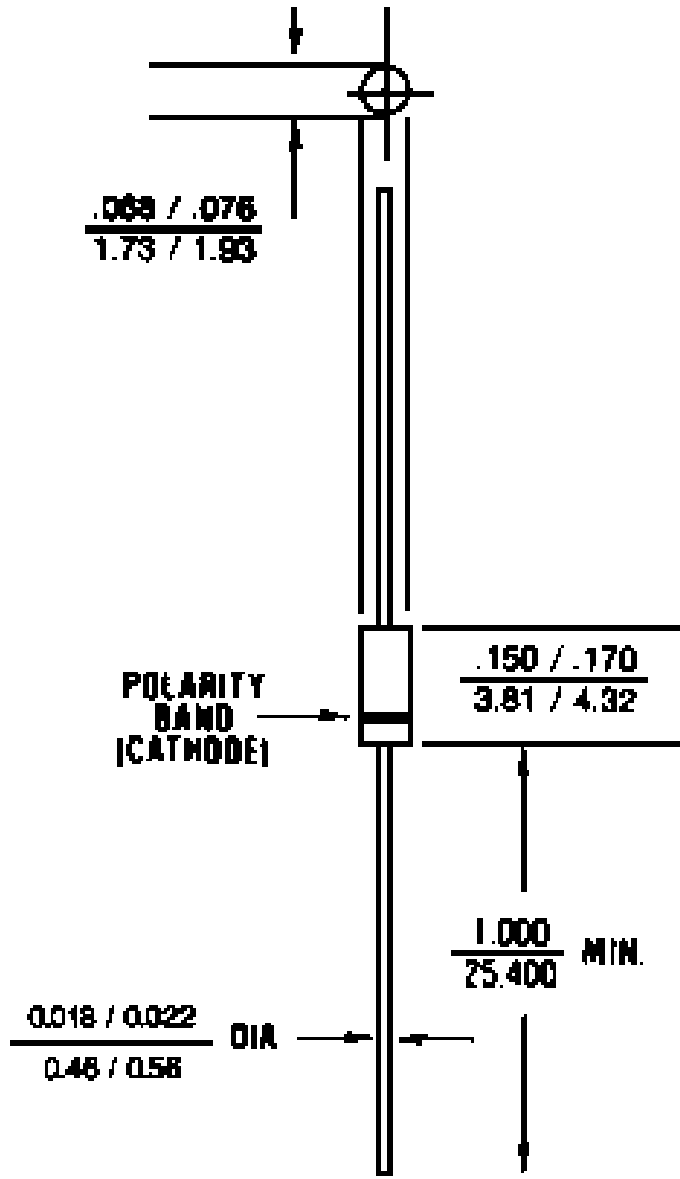


Figure 3. Typical Change of Temperature Coefficient with Change in Operating Current

1N821 thru 1N829A Temperature Compensated Zener Diodes

Package Outline Dimensions

DO-35



All dimensions in INCH
mm