



ELECTRONICS, INC.
 44 FARRAND STREET
 BLOOMFIELD, NJ 07003
 (973) 748-5089
<http://www.nteinc.com>

1N821A thru 1N829A Zener Diode, Temperature Compensating, 5.9V to 6.5V

Features:

- DO-7 Package

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Operating Junction Temperature Range, T_{opr}	-55° to $+100^\circ\text{C}$
Storage Temperature Range, T_{stg}	-55° to $+100^\circ\text{C}$
Forward Voltage ($I_F = 200\text{mA}$), V_F	1.1V
DC Power Dissipation ($T_A = +50$), P_D	500mW
Deratve Above $+50^\circ\text{C}$	3.33mW/ $^\circ\text{C}$

Electrical Characteristics: ($T_C = +25^\circ\text{C}$, unless otherwise specified)

NTE Type Number	Zener Voltage $V_z @ I_{zt}$ (Note 3)	Zener Test Current (I_{zt})	Max. Zener Impedance (Z_{zt}) (Note 2 & 3)	Voltage Temperature Stability (Note 1, 2 & 3)	Typical Temperature Coefficient α_{Vz}
			$Z_{zt} @ I_{zt}$	ΔV_{zt}	
	Volts	mA	Ohms	mV	%/ $^\circ\text{C}$
1N821A	5.9-6.5	7.5	10	96	0.01
1N823A	5.9-6.5	7.5	10	48	0.005
1N825A	5.9-6.5	7.5	10	19	0.002
1N827A	5.9-6.5	7.5	10	9	0.001
1N829A	5.9-6.5	7.5	10	5	0.0005

Note 1. Zener impedance is derived by superimposing on I_{zt} a 60Hz 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.

Note 3. Voltage measurements to be performed 15 seconds after application of DC current.

