

6.2 & 6.55 Volt Temperature Compensated  
Zener Reference Diodes

**\*ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified**

JEDEC TYPE NUMBER (Note 1, 5 & 6)	ZENER VOLTAGE (Note 1 and 4) $V_Z @ I_{ZT}$	ZENER TEST CURRENT $I_{ZT}$	MAXIMUM ZENER IMPEDANCE (Note 2) $Z_{ZT} @ I_{ZT}$	MAXIMUM REVERSE CURRENT $I_R @ 3 V$	VOLTAGE TEMPERATURE STABILITY ( $\Delta V_{ZT} \text{ MAX}$ ) -55°C to +100°C (Note 3 and 4)	EFFECTIVE TEMPERATURE COEFFICIENT $\alpha_{VZ}$
	VOLTS	mA	OHMS	$\mu A$	mV	%/°C
1N821	5.9 – 6.5	7.5	15	2.0	96	0.01
1N821A	5.9 – 6.5	7.5	10	2.0	96	0.01
1N822†	5.9 – 6.5	7.5	15	2.0	96	0.01
1N823	5.9 – 6.5	7.5	15	2.0	48	0.005
1N823A	5.9 – 6.5	7.5	10	2.0	48	0.005
1N824†	5.9 – 6.5	7.5	15	2.0	48	0.005
1N825	5.9 – 6.5	7.5	15	2.0	19	0.002
1N825A	5.9 – 6.5	7.5	10	2.0	19	0.002
1N826	6.2 – 6.9	7.5	15	2.0	20	0.002
1N827	5.9 – 6.5	7.5	15	2.0	9	0.001
1N827A	5.9 – 6.5	7.5	10	2.0	9	0.001
1N828	6.2 – 6.9	7.5	15	2.0	10	0.001
1N829	5.9 – 6.5	7.5	15	2.0	5	0.0005
1N829A	5.9 – 6.5	7.5	10	2.0	5	0.0005

\*JEDEC Registered Data.

†Double Anode; electrical specifications apply under both bias polarities.

**NOTES:**

1. Add a "-1" suffix for internal metallurgical bond. When ordering devices with tighter tolerances than specified for the  $V_Z$  voltage nominal of 6.35 V, add a hyphenated suffix to the part number for desired tolerance, e.g. 1N827-1-2%, 1N829-1-1%, 1N829A-1%, 1N829A-1-1%, etc.
2. Zener impedance measured by superimposing 0.75 mA ac rms on 7.5 mA dc @ 25°C.
3. The maximum allowable change observed over the entire temperature range i.e., the diode voltage will not exceed the specified mV change at discrete temperature between the established limits.
4. Voltage measurements to be performed 15 seconds after application of dc current.
5. 1N821, 1N823, 1N825, 1N827, and 1N829 also have qualification to MIL-PRF-19500/159 by adding the JAN, JANTX, JANTXV, or JANS prefix to part numbers as well as the "-1" suffix; e.g. JANTX1N827-1, JANTXV1N829-1, etc.
6. Designate Radiation Hardened devices with "RH" prefix instead of "1N", e.g. RH829A instead of 1N829A.