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*ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified

1N821, A, -1 1N829A-1	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 (ΔV_{ZT} MAX) -55°C to +100°C (Note 3 and 4)	EFFECTIVE TEMPERATURE COEFFICIENT α_{VZ}
	VOLTS	mA	OHMS	µA	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.

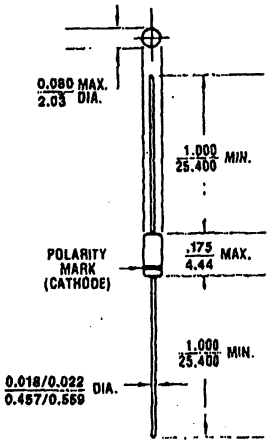
†Double Anode; electrical specifications apply under both bias polarities.

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 6.15 V, add a hyphened 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 is 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 any discrete temperature between the established limits.
4. Voltage measurements to be performed 15 seconds after application of dc current.

MAXIMUM RATINGS

- Operating Temperatures: -65°C to +175°C
- Storage Temperatures: -65°C to +175°C
- DC Power Dissipation: 500 mW @ T_L = 25°C and maximum current I_{ZM} of 70 mA. NOTE: For optimum voltage-temperature stability, I_Z = 7.5 mA (less than 50 mW in dissipated power)
- Solder Temperatures: 260°C for 10 s (max)



DO-35

All dimensions in INCH / mm

Quality Semi-Conductors