

FEATURES

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.

MAXIMUM RATINGS

Operating and storage temperature range	-65°C to +175°C
DC power dissipation	500mW @ $T_L = 25^\circ\text{C}$ and maximum current I_{ZM} OF 70mA. For optimum voltage-temperature stability, $I_Z = 7.5\text{mA}$ (less than 50 mW in dissipated power)
Solder temperatures	260°C for 10 s (max)

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Part number	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 $I_R @ 3V$	Voltage temperature stability ($\Delta V_{ZT} \text{ MAX}$) -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

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

NOTES:

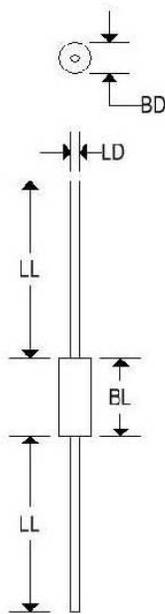
1. Add a "-1" suffix for internal metallurgical bond.
2. Zener impedance measured by superimposing 0.75 mA ac rms on 7.5mA dc @ 25°C.
3. The maximum allowable change observed over the entire temperature range, i.e. the diode voltage will not exceed the specified mV change at discrete temperature between the established limits.
4. Voltage measurements to be performed 15 seconds after application of dc current.

1N821-1N829A

TEMPERATURE COMPENSATED ZENER REFERENCE DIODE

MECHANICAL CHARACTERISTICS

Case	DO-7
Marking	Body painted, alpha numeric
Polarity	Cathode Band



	DO-7			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	-	0.107	-	2.718
BL	-	0.300	-	7.620
LD	0.018	0.022	0.457	0.559
LL	1.000	-	25.400	-