

1N3821(A)-1N3828(A)

1 WATT ZENER DIODE

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

Rating	Symbol	Value	Unit
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-65 to +175	°C
DC Power Dissipation @ $T_L = 95^\circ\text{C}$	PD	1.0	W
Power Derating above $T_L = 95^\circ\text{C}$	PD	12.5	mW/°C
Maximum Forward voltage @ 200mA	V_F	1.2	V

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

Part Number ⁽¹⁾	Nominal Zener Voltage ⁽²⁾	Zener Test Current	Maximum Zener Impedance ⁽³⁾		Maximum DC Current	Maximum Reverse Leakage Current	
	$V_Z @ I_{ZT}$	I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK} = 1\text{mA}$	I_{ZM}	$I_R @ V_R$	
	volts	mA	Ohms	Ohms	Ohms	µA	Volts
1N3821	3.3	76	10	400	276	100	1
1N3821A	3.3	76	10	400	276	100	1
1N3822	3.6	69	10	400	252	75	1
1N3822A	3.6	69	10	400	252	75	1
1N3823	3.9	64	9	400	238	25	1
1N3823A	3.9	64	9	400	238	25	1
1N3824	4.3	58	9	400	213	5	1
1N3824A	4.3	58	9	400	213	5	1
1N3825	4.7	53	8	500	194	5	1
1N3825A	4.7	53	8	500	194	5	1
1N3826	5.1	49	7	550	178	3	1
1N3826A	5.1	49	7	550	178	3	1
1N3827	5.6	45	5	600	162	3	2
1N3827A	5.6	45	5	600	162	3	2
1N3828	6.2	41	2	700	146	3	3
1N3828A	6.2	41	2	700	146	3	3

Note 1: No suffix = ±10% tolerance on nominal zener voltage, suffix "A" signifies ±5%, suffix "C" signifies ±2%, suffix "D" signifies ±1%.

Note 2: Zener voltage is measured with the device junction in thermal equilibrium at an ambient temperature of $25^\circ\text{C} \pm 3^\circ\text{C}$.

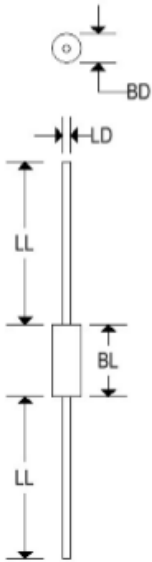
Note 3: Zener impedance is derived by superimposing on I_{ZT} a 60Hz rms ac current equal to 10% of I_{ZT} .

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MECHANICAL CHARACTERISTICS

CASE	DO-41 glass
MARKING	Body painted, alpha-numeric
POLARITY	Cathode band



	DO-41			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	-	0.107	-	2.720
BL	-	0.205	-	5.207
LD	0.028	0.034	0.711	0.864
LL	1.000	-	25.400	-



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