

- 1N3821A-1 THRU 1N3828A-1 AVAILABLE IN JAN, JANTX AND JANTXV 1N3821A thru 1N3828A and 1N3821A-1 thru 1N3828A-1
- PER MIL-PRF-19500/115
- 1 WATT ZENER DIODE
- DOUBLE PLUG CONSTRUCTION
- METALLURGICALLY BONDED

MAXIMUM RATINGS

Operating Temperature: -65°C to +175°C
 Storage Temperature: -65°C to +175°C
 DC Power Dissipation: 1 watt @ $T_L = 95^\circ\text{C}$
 Power Derating: 12.5 mW / °C above $T_L = 95^\circ\text{C}$
 Forward Voltage @ 200mA = 1.2 volts maximum

ELECTRICAL CHARACTERISTICS @ 25°C

CDI TYPE NUMBER (NOTE 1)	NOMINAL ZENER VOLTAGE V_Z @ 1ZT (NOTE 3)	ZENER TEST CURRENT 1ZT	MAXIMUM ZENER IMPEDANCE		MAX. DC ZENER CURRENT 1ZM	MAX. REVERSE LEAKAGE CURRENT I_R @ V_R	
			Z_{ZT} @ 1ZT	Z_{ZK} @ 1ZK=1mA (NOTE 2)		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 = $\pm 10\%$ tolerance on nominal Zener voltage, suffix "A" signifies $\pm 5\%$, suffix "D" signifies $\pm 1\%$.
- NOTE 2** Zener impedance is derived by superimposing on 1ZT A 60Hz rms a.c. current equal to 10% of 1ZT.
- NOTE 3** Zener voltage is measured with the device junction in thermal equilibrium at an ambient temperature of $25^\circ\text{C} \pm 3^\circ\text{C}$.

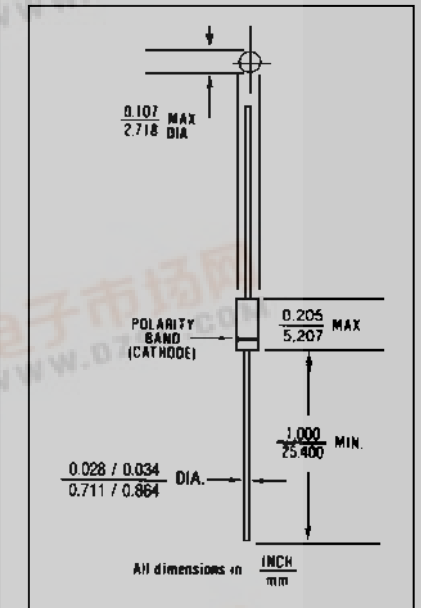


FIGURE 1

DESIGN DATA

CASE: Hermetically sealed glass case, DO41.

LEAD MATERIAL: Copper clad steel

LEAD FINISH: Tin / Lead

THERMAL RESISTANCE: ($R_{\theta JEC}$): 80 °C/W maximum at L = .375 inch

THERMAL IMPEDANCE: ($Z_{\theta JX}$): 15 °C/W maximum

POLARITY: Diode to be operated with the banded (cathode) end positive.

MOUNTING POSITION: Any.

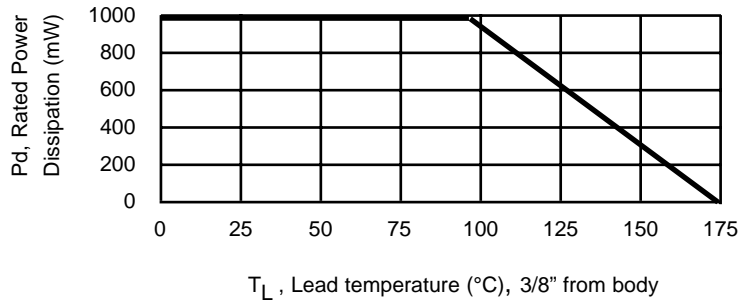


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1N3821A thru 1N3828A and 1N3821A-1 thru 1N3828A-1

FIGURE 2



POWER DERATING CURVE

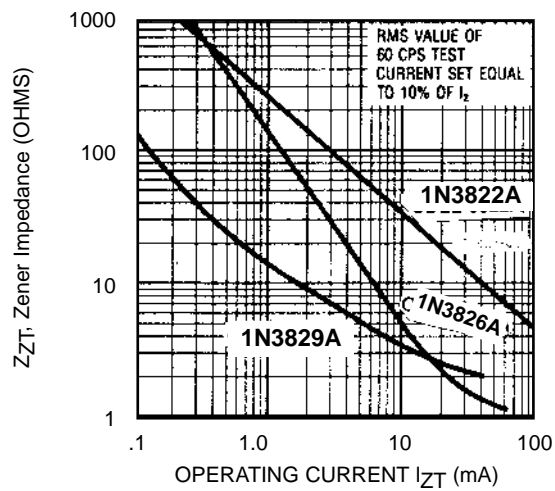


FIGURE 3
ZENER IMPEDANCE VS. OPERATING CURRENT