

- 1N3821AUR-1 thru 1N3828AUR-1 AVAILABLE IN JAN, JANIX AND JANIXV
- PER MIL-PRF-19500/115
- LEADLESS PACKAGE FOR SURFACE MOUNT
- DOUBLE PLUG CONSTRUCTION
- METALLURGICALLY BONDED

1N3821AUR-1  
thru  
1N3828AUR-1  
and  
CDLL3821 thru CDLL 3828A

## MAXIMUM RATINGS

Operating Temperature: -65°C to +175°C  
Storage Temperature: -65°C to +175°C  
DC Power Dissipation: 1 watt @ +T<sub>EC</sub> = 125°C  
Power Derating: 20 mW / °C above T<sub>EC</sub> = 125°C  
Forward Voltage @ 200mA = 1.2 volts maximum

## ELECTRICAL CHARACTERISTICS @ 25°C

CDI TYPE NUMBER (NOTE 1)	NOMINAL ZENER VOLTAGE V <sub>Z</sub> @ 1ZT (NOTE 3)	ZENER TEST CURRENT 1ZT	MAXIMUM ZENER IMPEDANCE		MAX. DC ZENER CURRENT 1ZM	MAX. REVERSE LEAKAGE CURRENT I <sub>R</sub> @ V <sub>R</sub>	
			Z <sub>ZT</sub> @ 1ZT	Z <sub>ZK</sub> @ 1ZK=1mA (NOTE 2)		μA	VOLTS
			OHMS	OHMS			
CDLL3821	3.3	76	10	400	276	100	1
CDLL3821A	3.3	76	10	400	276	100	1
CDLL3822	3.6	69	10	400	252	75	1
CDLL3822A	3.6	69	10	400	252	75	1
CDLL3823	3.9	64	9	400	238	25	1
CDLL3823A	3.9	64	9	400	238	25	1
CDLL3824	4.3	58	9	400	213	5	1
CDLL3824A	4.3	58	9	400	213	5	1
CDLL3825	4.7	53	8	500	194	5	1
CDLL3825A	4.7	53	8	500	194	5	1
CDLL3826	5.1	49	7	550	178	3	1
CDLL3826A	5.1	49	7	550	178	3	1
CDLL3827	5.6	45	5	600	162	3	2
CDLL3827A	5.6	45	5	600	162	3	2
CDLL3828	6.2	41	2	700	146	3	3
CDLL3828A	6.2	41	2	700	146	3	3

**NOTE 1** No suffix = ± 10% tolerance on nominal Zener voltage, suffix "A" signifies ±5%, "C" suffix signifies ± 2% and "D" suffix signifies ± 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°C ± 3°C.

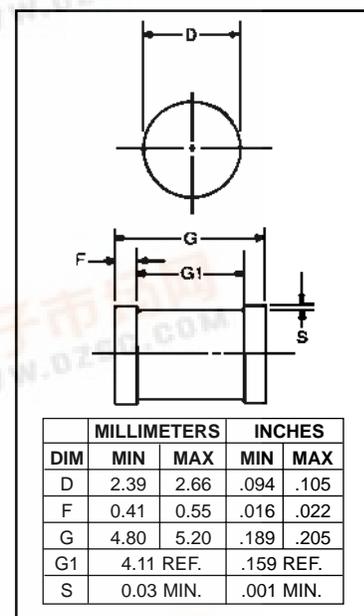


FIGURE 1

## DESIGN DATA

**CASE:** DO-213AB, Hermetically sealed glass case. (MELF, LL41)

**LEAD FINISH:** Tin / Lead

**THERMAL RESISTANCE:** (R<sub>QJEC</sub>): 50 °C/W maximum at L = 0 inch

**THERMAL IMPEDANCE:** (Z<sub>ΘJX</sub>): 15 °C/W maximum

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

**MOUNTING POSITION:** Any.

**MOUNTING SURFACE SELECTION:**  
The Axial Coefficient of Expansion (COE) of this Device is Approximately +6PPM/°C. The COE of the Mounting Surface System Should Be Selected To Provide A Suitable Match With This Device.

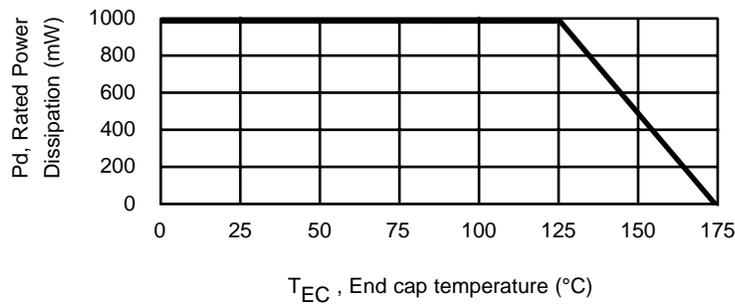


**COMPENSATED DEVICES INCORPORATED**

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# 1N3821AUR-1 thru 1N3828AUR-1 and CDLL3821A thru CDLL3828A

FIGURE 2



POWER DERATING CURVE

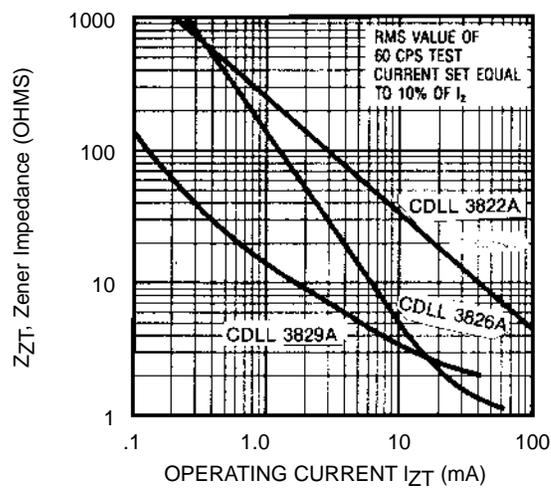


FIGURE 3  
ZENER IMPEDANCE  
VS.  
OPERATING CURRENT