



**THE DATASHEET OF  
CDLL4616/TR**



• 1N4614UR-1 THRU 1N4627UR-1 AVAILABLE IN JAN, JANTX, JANTXV AND JANS

PER MIL-PRF-19500/435

- LEADLESS PACKAGE FOR SURFACE MOUNT
- LOW CURRENT OPERATION AT 250  $\mu$ A
- METALLURGICALLY BONDED

1N4614UR-1  
thru  
1N4627UR-1  
and  
CDLL4614 thru CDLL4627

**MAXIMUM RATINGS**

Operating Temperatures: -65°C to +175°C  
DC Power Dissipation: 500mW @  $T_{EC} = +125^\circ\text{C}$   
Power Derating: 10 mW / °C above  $T_{EC} = +125^\circ\text{C}$   
Forward Voltage @ 200 mA: 1.1 Volts maximum

**ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified.**

CDI TYPE NUMBER	NOMINAL ZENER VOLTAGE $V_Z @ I_{ZT}$	ZENER TEST CURRENT $I_{ZT}$	MAXIMUM ZENER IMPEDANCE $Z_{ZT} @ I_{ZT}$	MAXIMUM REVERSE LEAKAGE CURRENT $I_R @ V_R$		MAXIMUM DC ZENER CURRENT
	(Note 1) VOLTS	$\mu$ A	(Note 2) OHMS	$\mu$ A	VOLTS	mA
CDLL4614	1.8	250	1200	7.5	1	120
CDLL4615	2.0	250	1250	5.0	1	110
CDLL4616	2.2	250	1300	4.0	1	100
CDLL4617	2.4	250	1400	2.0	1	95
CDLL4618	2.7	250	1500	1.0	1	90
CDLL4619	3.0	250	1600	0.8	1	87
CDLL4620	3.3	250	1650	7.5	1.5	85
CDLL4621	3.6	250	1700	7.5	2	83
CDLL4622	3.9	250	1650	5.0	2	80
CDLL4623	4.3	250	1600	4.0	2	77
CDLL4624	4.7	250	1550	10.0	3	75
CDLL4625	5.1	250	1500	10.0	3	70
CDLL4626	5.6	250	1400	10.0	4	65
CDLL4627	6.2	250	1200	10.0	5	61

**NOTE 1** The CDI type numbers shown above have a Zener voltage tolerance of  $\pm 5.0\%$ . Nominal Zener voltage is measured with the device junction in thermal equilibrium at an ambient temperature of  $25^\circ\text{C} \pm 3^\circ\text{C}$ . "C" suffix denotes a + 2% tolerance and "D" suffix denotes a + 1% tolerance.

**NOTE 2** Zener impedance is derived by superimposing on  $I_{ZT}$  A 60Hz rms a.c. current equal to 10% of  $I_{ZT}$ .

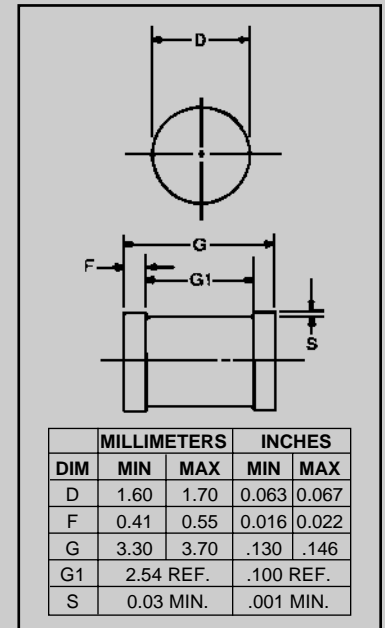


FIGURE 1

**DESIGN DATA**

**CASE:** DO-213AA, Hermetically sealed glass case. (MELF, SOD-80, LL34)

**LEAD FINISH:** Tin / Lead

**THERMAL RESISTANCE:** ( $R_{\theta JEC}$ ): 100 °C/W maximum at L = 0 inch

**THERMAL IMPEDANCE:** ( $Z_{JX}$ ): 35 °C/W maximum

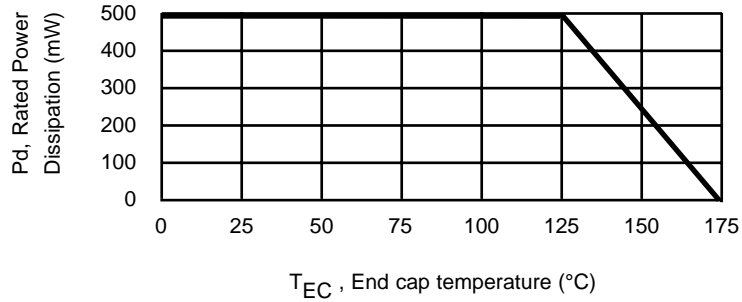
**POLARITY:** Diode to be operated with the banded (cathode) end positive.

**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.



# CDLL4614 thru CDLL4627

FIGURE 2



POWER DERATING CURVE

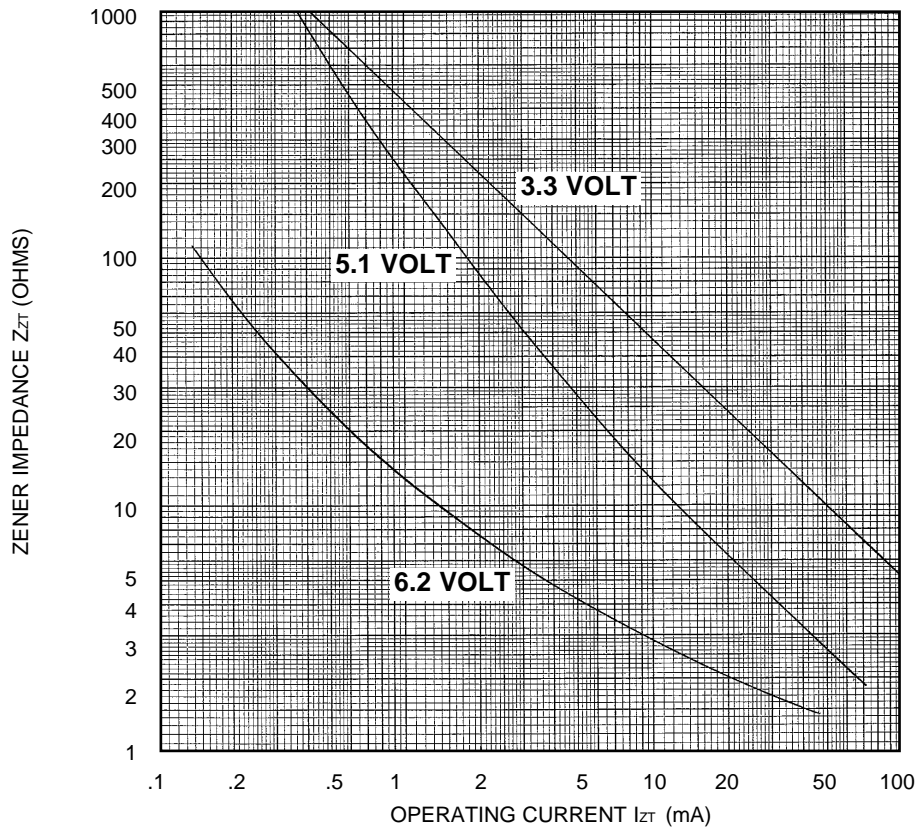




FIGURE 3

ZENER IMPEDANCE VS. OPERATING CURRENT

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