

- 1.5 WATT ZENER DIODE
- LEADLESS PACKAGE FOR SURFACE MOUNT
- METALLURGICALLY BONDED (-1)
- DOUBLE PLUG CONSTRUCTION

CDLL4460  
thru  
CDLL4490

## MAXIMUM RATINGS

Operating Temperature: -65°C to +175°C  
Storage Temperature: -65°C to +175°C  
DC Power Dissipation: 1.5 watts @ +25°C  
Power Derating: 10 mW / °C above +25°C  
Forward Voltage at 200 mA: 1.0 Volts maximum

ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified.

CDI TYPE NUMBER	NOMINAL ZENER VOLTAGE $V_Z @ I_{ZT}$ (Note 1)	ZENER TEST CURRENT $I_{ZT}$	MAXIMUM ZENER IMPEDANCE $Z_{ZT}$ (Note 2)	MAXIMUM REVERSE LEAKAGE CURRENT $I_R @ V_R$		MAXIMUM KNEE IMPEDANCE $Z_{ZK} @ I_{ZK}$ (Note 2)	
				$\mu A$	VOLTS	OHMS	mA
	VOLTS	mA	OHMS				
CDLL4460	6.2	40.0	4	10.0	3.72	200	1.0
CDLL4461	6.8	37.0	2.5	5.0	4.08	200	1.0
CDLL4462	7.5	34.0	2.5	1.0	4.50	400	.5
CDLL4463	8.2	31.0	3	.50	4.92	400	.5
CDLL4464	9.1	28.0	4	.30	5.46	500	.5
CDLL4465	10.0	25.0	5	.30	8.00	500	.25
CDLL4466	11.0	23.0	6	.30	8.80	550	.25
CDLL4467	12.0	21.0	7	.20	9.60	550	.25
CDLL4468	13.0	19.0	8	.05	10.40	550	.25
CDLL4469	15.0	17.0	9	.05	12.00	600	.25
CDLL4470	16.0	15.5	10	.05	12.80	600	.25
CDLL4471	18.0	14.0	11	.05	14.40	650	.25
CDLL4472	20.0	12.5	12	.05	16.00	650	.25
CDLL4473	22.0	11.5	14	.05	17.60	650	.25
CDLL4474	24.0	10.5	16	.05	19.20	700	.25
CDLL4475	27.0	9.5	18	.05	21.60	700	.25
CDLL4476	30.0	8.5	20	.05	24.00	750	.25
CDLL4477	33.0	7.5	25	.05	26.40	800	.25
CDLL4478	36.0	7.0	27	.05	28.80	850	.25
CDLL4479	39.0	6.5	30	.05	31.20	900	.25
CDLL4480	43.0	6.0	40	.05	34.40	950	.25
CDLL4481	47.0	5.5	50	.05	37.60	1000	.25
CDLL4482	51.0	5.0	60	.25	40.80	1100	.25
CDLL4483	56.0	4.5	70	.25	44.80	1300	.25
CDLL4484	62.0	4.0	80	.25	49.60	1500	.25
CDLL4485	68.0	3.7	100	.25	54.40	1700	.25
CDLL4486	75.0	3.3	130	.25	60.40	2000	.25
CDLL4487	82.0	3.0	160	.25	65.60	2500	.25
CDLL4488	91.0	2.8	200	.25	72.80	3000	.25
CDLL4489	100.0	2.5	250	.25	80.00	3100	.25
CDLL4490	110.0	2.0	300	.25	88.00	4000	.25

**NOTE 1** The CDI type numbers shown above have a standard tolerance of  $\pm 5\%$  of the nominal Zener voltage. Nominal Zener voltage is measured with the device junction in thermal equilibrium at an ambient temperature of  $25^\circ C \pm 3^\circ C$ .

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

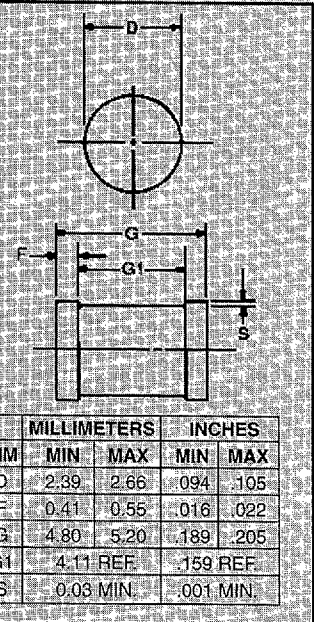


FIGURE 1

## DESIGN DATA

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

**LEAD FINISH:** Tin / Lead

**THERMAL RESISTANCE:** Junction to End Cap =  $50^\circ C/W$  maximum

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

**MOUNTING POSITION:** Any

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



**COMPENSATED DEVICES INCORPORATED**

166 TREMONT STREET, MELROSE, MASSACHUSETTS 02176

PHONE (617) 665-1071

WWW SITE: <http://www.cdi-diodes.com>

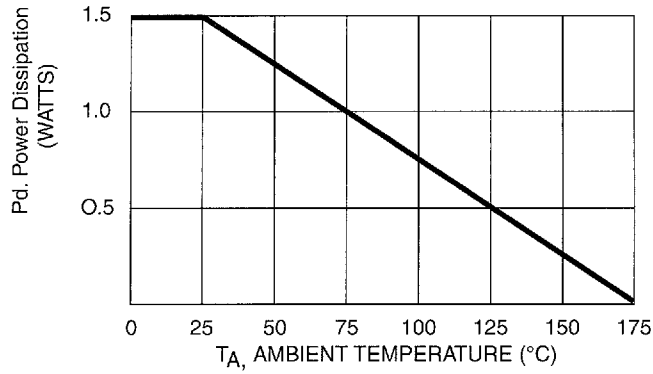
FAX (617) 665-7379

E-mail: [mail@cdi-diodes.com](mailto:mail@cdi-diodes.com)

2302554 0000841 TTT

# CDLL4460 thru CDLL4490

FIGURE 2



POWER DERATING CURVE

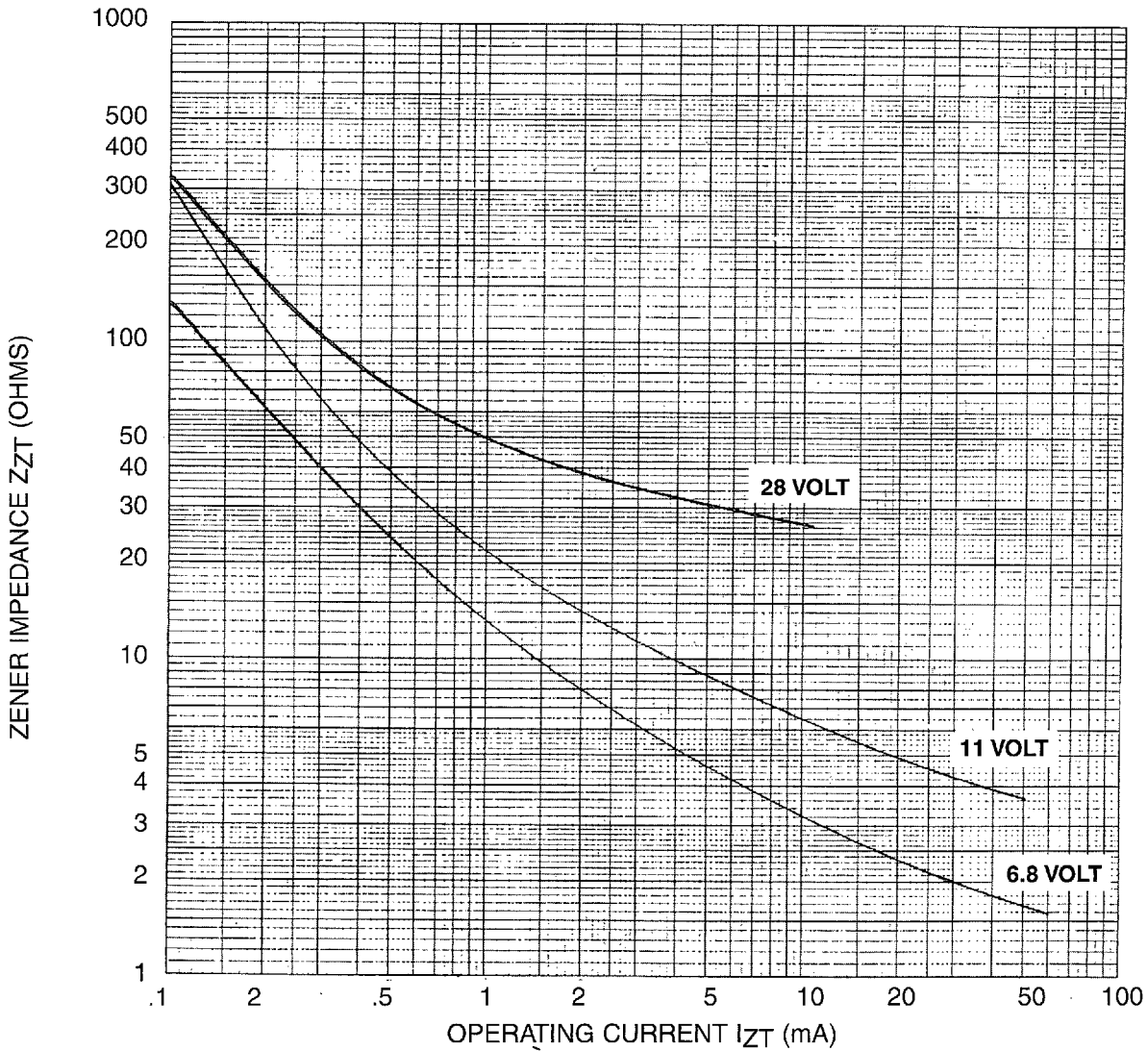


FIGURE 3  
ZENER IMPEDANCE VS. OPERATING CURRENT