

- 1 WATT ZENER DIODES
- LEADLESS PACKAGE FOR SURFACE MOUNT
- DOUBLE PLUG CONSTRUCTION
- METALLURGICALLY BONDED

**CDLL4728  
thru  
CDLL4764A  
and  
CDLL1W110**

### MAXIMUM RATINGS

Operating Temperature: -65°C to +175°C  
Storage Temperature: -65°C to +175°C  
Power Derating: 20mW / °C above  $T_{EC} = +125^{\circ}C$   
Forward voltage @ 200mA: 1.2 volts maximum

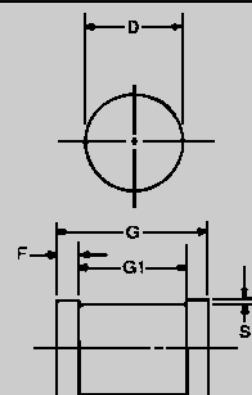
### ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified.

CDI TYPE NUMBER	NOMINAL ZENER VOLTAGE $V_Z$	TEST CURRENT $I_{ZT}$	MAXIMUM ZENER IMPEDANCE $Z_{ZT} @ I_{ZT}$	MAXIMUM REVERSE CURRENT $I_R @ V_R$	TEST VOLTAGE $V_R$	MAXIMUM KNEE IMPEDANCE $Z_{ZK} @ I_{ZK}$	TEST CURRENT $I_{ZK}$
	(Note 1&3) VOLTS	mA	(Note 2) OHMS	$\mu A$	VOLTS	(Note 2) OHMS	mA
CDLL4728A	3.3	76	10	100	1	400	1.0
CDLL4729A	3.6	69	10	100	1	400	1.0
CDLL4730A	3.9	64	9	100	1	400	1.0
CDLL4731A	4.3	58	9	10	1	400	1.0
CDLL4732A	4.7	53	8	10	1	500	1.0
CDLL4733A	5.1	49	7	5	1	550	1.0
CDLL4734A	5.6	45	5	5	2	600	1.0
CDLL4735A	6.2	41	2	5	3	700	1.0
CDLL4736A	6.8	37	3.5	3	4	700	1.0
CDLL4737A	7.5	34	4.0	3	5	700	0.5
CDLL4738A	8.2	31	4.5	3	6	700	0.5
CDLL4739A	9.1	28	5.0	3	7	700	0.5
CDLL4740A	10	25	7	3	7.6	700	0.25
CDLL4741A	11	23	8	2	8.4	700	0.25
CDLL4742A	12	21	9	1	9.1	700	0.25
CDLL4743A	13	29	10	0.5	9.9	700	0.25
CDLL4744A	15	17	14	0.1	11.4	700	0.25
CDLL4745A	16	15.5	16	0.1	12.2	700	0.25
CDLL4746A	18	14	20	0.1	13.7	750	0.25
CDLL4747A	20	12.5	22	0.1	15.2	750	0.25
CDLL4748A	22	11.5	23	0.1	16.7	750	0.25
CDLL4749A	24	10.5	25	0.1	18.2	750	0.25
CDLL4750A	27	9.5	35	0.1	20.6	750	0.25
CDLL4751A	30	8.5	40	0.1	22.8	1000	0.25
CDLL4752A	33	7.5	45	0.1	25.1	1000	0.25
CDLL4753A	36	7.0	50	0.1	27.4	1000	0.25
CDLL4754A	39	6.5	60	0.1	29.7	1000	0.25
CDLL4755A	43	6.0	70	0.1	32.7	1500	0.25
CDLL4756A	47	5.5	80	0.1	35.8	1500	0.25
CDLL4757A	51	5.0	95	0.1	38.8	1500	0.25
CDLL4758A	56	4.5	110	0.1	42.6	2000	0.25
CDLL4759A	62	4.0	125	0.1	47.1	2000	0.25
CDLL4760A	68	3.7	150	0.1	51.7	2000	0.25
CDLL4761A	75	3.3	175	0.1	56.0	2000	0.25
CDLL4762A	82	3.0	200	0.1	62.2	3000	0.25
CDLL4763A	91	2.8	250	0.1	69.2	3000	0.25
CDLL4764A	100	2.5	350	0.1	76.0	3000	0.25
CDLL1W110A	110	2.3	450	0.1	83.6	4000	0.25

**NOTE 1** "A" suffix =  $\pm 5\%$ , no suffix =  $\pm 10\%$ , "C" SUFFIX =  $\pm 2\%$  and "D" suffix =  $\pm 1\%$ .

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

**NOTE 3** Nominal Zener voltage is measured with the device junction in thermal equilibrium at an ambient temperature of  $25^{\circ}C \pm 3^{\circ}C$ .



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
D	2.39	2.66	.094	.105
F	0.41	0.55	.016	.022
G	4.80	5.20	.189	.205
G1	4.11 REF.		.159 REF.	
S	0.03 MIN.		.001 MIN.	

**FIGURE 1**

### DESIGN DATA

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

**LEAD FINISH:** Tin / Lead

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

**THERMAL IMPEDANCE:** ( $Z_{\theta JX}$ ): 15 °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.



6 LAKE STREET, LAWRENCE, MASSACHUSETTS 01841  
PHONE (978) 620-2600  
WEBSITE: <http://www.microsemi.com>

FAX (978) 689-0803

# CDLL4728 thru CDLL4764A and CDLL1W110

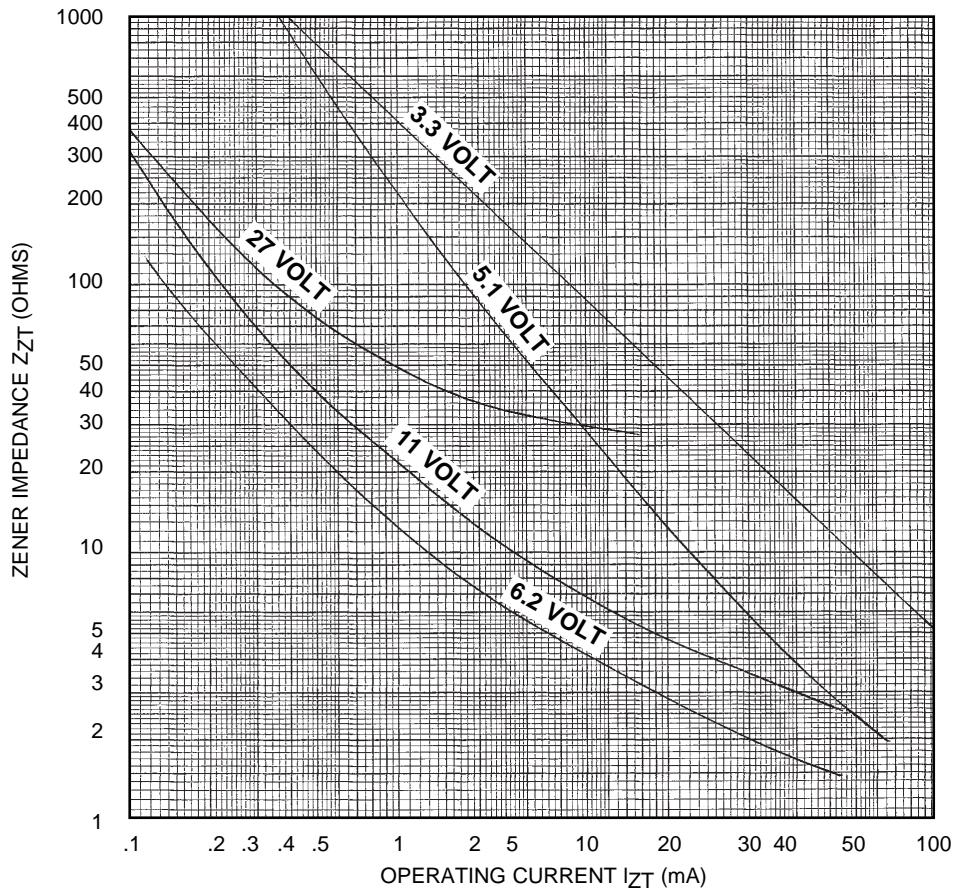


FIGURE 3

ZENER IMPEDANCE VS. OPERATING CURRENT