

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

**CDLL5221**  
thru  
**CDLL5272B**

### MAXIMUM RATINGS

Operating Temperature: -65°C to +175°C  
Storage Temperature: -65°C to +175°C  
Power Derating: 10 mW / °C above T<sub>EC</sub> = +125°C  
Forward Voltage: @ 200 mA: 1.1 Volts maximum

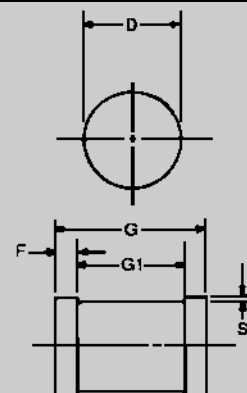
### ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified

CDI TYPE NUMBER	NOMINAL ZENER VOLTAGE V <sub>Z</sub> @ I <sub>ZT</sub> (Note 1 & 3)	TEST CURRENT I <sub>ZT</sub>	MAXIMUM ZENER IMPEDANCE (Note 2)		MAXIMUM REVERSE CURRENT I <sub>R</sub> @ V <sub>R</sub>	
			Z <sub>ZT</sub> @ I <sub>ZT</sub>	Z <sub>ZK</sub> @ I <sub>ZK</sub> =0.25mA	μA	VOLTS
			OHMS	OHMS		
CDLL5221B	2.4	20	30	1200	100	1.0
CDLL5222B	2.5	20	30	1250	100	1.0
CDLL5223B	2.7	20	30	1300	75	1.0
CDLL5224B	2.8	20	30	1400	75	1.0
CDLL5225B	3.0	20	29	1600	50	1.0
CDLL5226B	3.3	20	28	1600	25	1.0
CDLL5227B	3.6	20	24	1700	15	1.0
CDLL5228B	3.9	20	23	1900	10	1.0
CDLL5229B	4.3	20	22	2000	5.0	1.0
CDLL5230B	4.7	20	19	1900	5.0	2.0
CDLL5231B	5.1	20	17	1600	5.0	2.0
CDLL5232B	5.6	20	11	1600	5.0	3.0
CDLL5233B	6.0	20	7.0	1600	5.0	3.5
CDLL5234B	6.2	20	7.0	1000	5.0	4.0
CDLL5235B	6.8	20	5.0	750	3.0	5.0
CDLL5236B	7.5	20	6.0	500	3.0	6.0
CDLL5237B	8.2	20	8.0	500	3.0	6.5
CDLL5238B	8.7	20	8.0	600	3.0	6.5
CDLL5239B	9.1	20	10	600	3.0	7.0
CDLL5240B	10	20	17	600	3.0	8.0
CDLL5241B	11	20	22	600	2.0	8.4
CDLL5242B	12	20	30	600	1.0	9.1
CDLL5243B	13	9.5	13	600	0.5	9.9
CDLL5244B	14	9.0	15	600	0.1	10
CDLL5245B	15	8.5	16	600	0.1	11
CDLL5246B	16	7.8	17	600	0.1	12
CDLL5247B	17	7.4	19	600	0.1	13
CDLL5248B	18	7.0	21	600	0.1	14
CDLL5249B	19	6.6	23	600	0.1	14
CDLL5250B	20	6.2	25	600	0.1	15
CDLL5251B	22	5.6	29	600	0.1	17
CDLL5252B	24	5.2	33	600	0.1	18
CDLL5253B	25	5.0	35	600	0.1	19
CDLL5254B	27	4.6	41	600	0.1	21
CDLL5255B	28	4.5	44	600	0.1	21
CDLL5256B	30	4.2	49	600	0.1	23
CDLL5257B	33	3.8	58	700	0.1	25
CDLL5258B	36	3.4	70	700	0.1	27
CDLL5259B	39	3.2	80	800	0.1	30
CDLL5260B	43	3.0	93	900	0.1	33
CDLL5261B	47	2.7	105	1000	0.1	36
CDLL5262B	51	2.5	125	1100	0.1	39
CDLL5263B	56	2.2	150	1300	0.1	43
CDLL5264B	60	2.1	170	1400	0.1	46
CDLL5265B	62	2.0	185	1400	0.1	47
CDLL5266B	68	1.8	230	1600	0.1	52
CDLL5267B	75	1.7	270	1700	0.1	56
CDLL5268B	82	1.5	330	2000	0.1	62
CDLL5269B	87	1.4	370	2200	0.1	68
CDLL5270B	91	1.4	400	2300	0.1	69
CDLL5271B	100	1.3	500	2600	0.1	76
CDLL5272B	110	1.1	750	3000	0.1	84

**NOTE 1** "B" suffix = ±5.0%, "A" suffix = ±10%, no suffix = ± 20%, "C" suffix = ± 2% and "D" suffix = ± 1%.

**NOTE 2** Zener impedance is derived by superimposing on I<sub>ZT</sub> A 60Hz rms a.c. current equal to 10% of I<sub>ZT</sub>.

**NOTE 3** Nominal Zener voltage is measured with the device junction in thermal equilibrium at an ambient temperature of 25°C ± 3°C.



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
D	1.60	1.70	0.063	0.067
F	0.41	0.55	0.016	0.022
G	3.30	3.70	.130	.146
G1	2.54 REF.		.100 REF.	
S	0.03 MIN.		.001 MIN.	

**FIGURE 1**

### DESIGN DATA

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

**LEAD FINISH:** Tin / Lead

**THERMAL RESISTANCE:** (R<sub>ΘJEC</sub>): 100 °C/W maximum at L = 0 inch

**THERMAL IMPEDANCE:** (Z<sub>ΘJX</sub>): 35 °C/W maximum

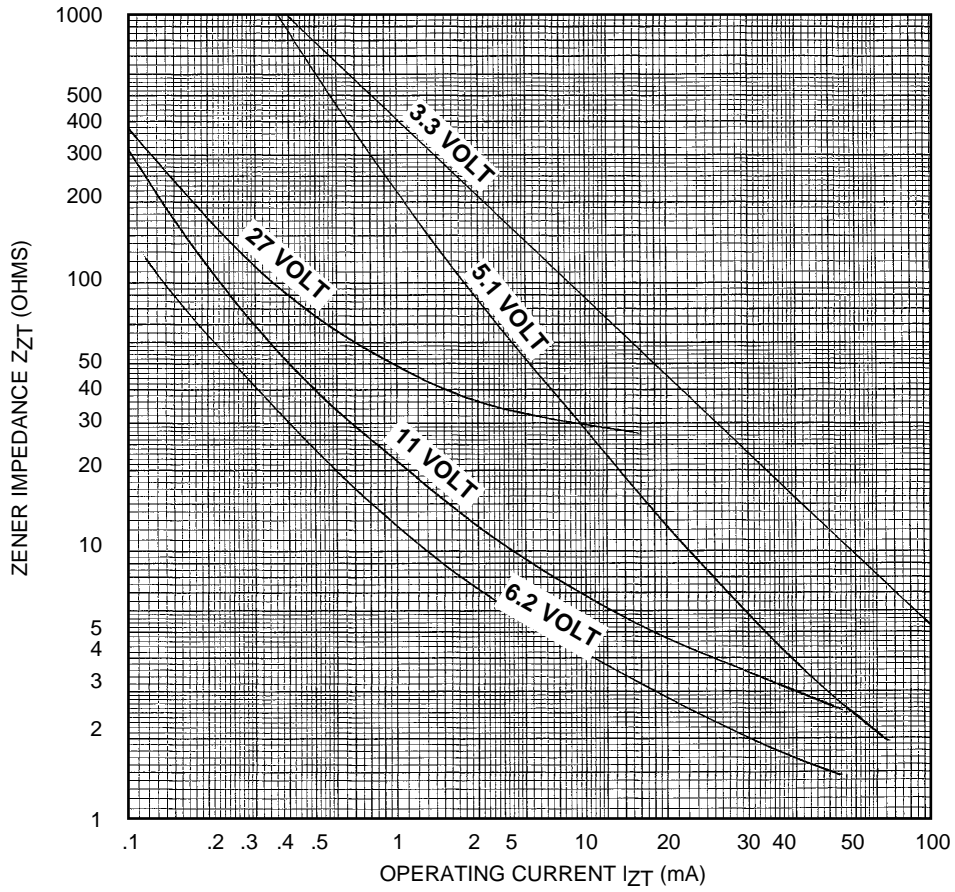
**POLARITY:** Diode to be operated with the banded (cathode) end positive.

**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.



6 LAKE STREET, LAWRENCE, MASSACHUSETTS 01841  
PHONE (978) 620-2600 FAX (978) 689-0803  
WEBSITE: <http://www.microsemi.com>

# CDLL5221B thru CDLL5272B



**FIGURE 3**  
**ZENER IMPEDANCE VS. OPERATING CURRENT**