

- 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 $T_{EC} = +125^{\circ}C$
Forward Voltage: @ 200 mA: 1.1 Volts maximum

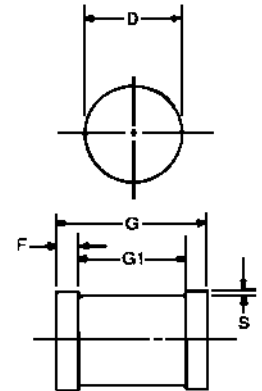
ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified

| CDI TYPE NUMBER | NOMINAL ZENER VOLTAGE V_Z @ I_{ZT} (Note 1 & 3) | TEST CURRENT I_{ZT} | MAXIMUM ZENER IMPEDANCE (Note 2) | | MAXIMUM REVERSE CURRENT I_R @ V_R | |
|-----------------|---|-----------------------|----------------------------------|----------------------------|---------------------------------------|-------|
| | | | Z_{ZT} @ I_{ZT} | Z_{ZK} @ $I_{ZK}=0.25mA$ | 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 = $\pm 5.0\%$, "A" suffix = $\pm 10\%$, no suffix = $\pm 20\%$, "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} .

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



| | MILLIMETERS | | INCHES | |
|-----|-------------|------|-----------|-------|
| DIM | 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: ($R_{\theta JC}$): 100 °C/W maximum at L = 0 inch

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



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CDLL5221B thru CDLL5272B

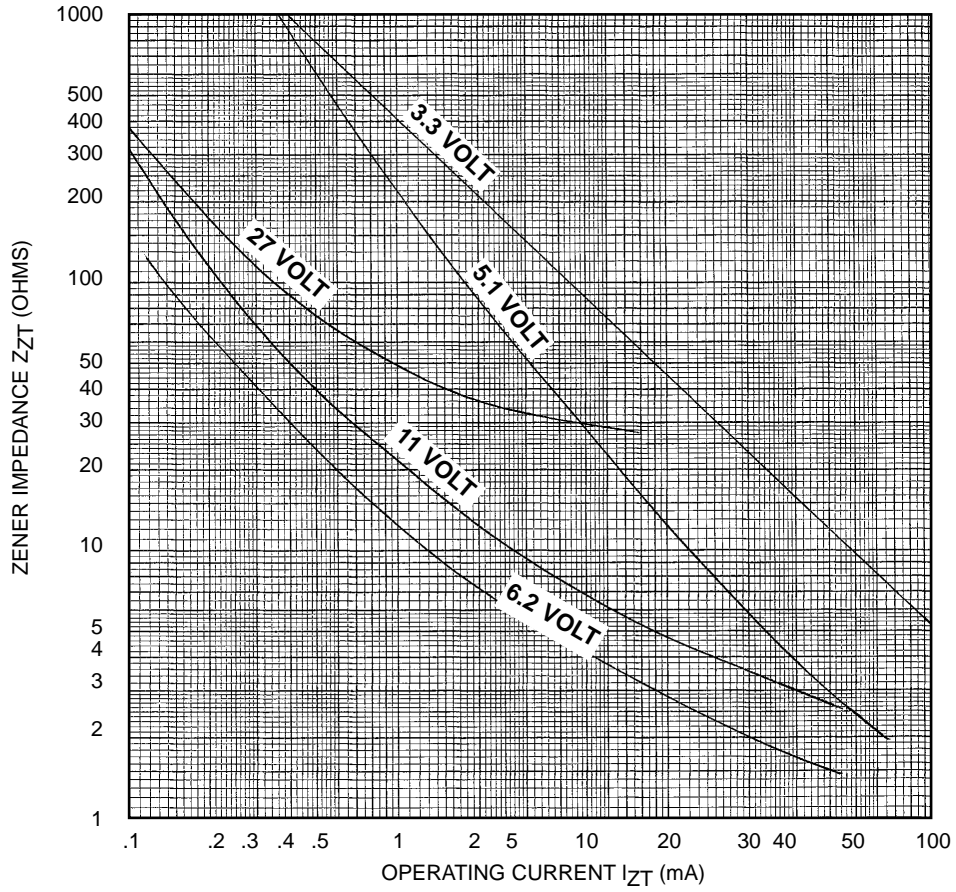


FIGURE 3

ZENER IMPEDANCE VS. OPERATING CURRENT



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