

- 50 μ A, LOW OPERATING CURRENT, ZENER DIODES
- LEADLESS PACKAGE FOR SURFACE MOUNT
- DOUBLE PLUG CONSTRUCTION
- METALLURGICALLY BONDED

CDLL4678
thru
CDLL4717

MAXIMUM RATINGS

Operating Temperature: -65°C to +175°C
 Storage Temperature: -65°C to +175°C
 Power Dissipation: 500mW @ T_{EC} +125°C
 DC Power Derating: 10 mW / °C above T_{EC} +125°C
 Forward Voltage : 1.1 Volts maximum @ 200 mA

ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified.

| CDI TYPE NUMBER (Note 1) | NOMINAL ZENER VOLTAGE V _Z | ZENER TEST CURRENT I _{ZT} | MAXIMUM VOLTAGE REGULATION %V _Z (Note 2) | MAXIMUM REVERSE LEAKAGE CURRENT I _R @ V _R | | MAXIMUM DC ZENER CURRENT I _{ZM} |
|-----------------------------|--------------------------------------|------------------------------------|--|---|-------|--|
| | VOLTS | μ A | VOLTS | μ A | VOLTS | mA |
| CDLL4678 | 1.8 | 50 | 0.70 | 7.5 | 1.0 | 120.0 |
| CDLL4679 | 2.0 | 50 | 0.70 | 5.0 | 1.0 | 110.0 |
| CDLL4680 | 2.2 | 50 | 0.75 | 4.0 | 1.0 | 100.0 |
| CDLL4681 | 2.4 | 50 | 0.80 | 2.0 | 1.0 | 95.0 |
| CDLL4682 | 2.7 | 50 | 0.80 | 1.0 | 1.0 | 90.0 |
| CDLL4683 | 3.0 | 50 | 0.90 | 0.8 | 1.0 | 85.0 |
| CDLL4684 | 3.3 | 50 | 0.95 | 7.5 | 1.5 | 80.0 |
| CDLL4685 | 3.6 | 50 | 0.95 | 7.5 | 2.0 | 75.0 |
| CDLL4686 | 3.9 | 50 | 0.97 | 5.0 | 2.0 | 70.0 |
| CDLL4687 | 4.3 | 50 | 0.99 | 4.0 | 2.0 | 65.0 |
| CDLL4688 | 4.7 | 50 | 0.99 | 10.0 | 3.0 | 60.0 |
| CDLL4689 | 5.1 | 50 | 0.97 | 10.0 | 3.0 | 55.0 |
| CDLL4690 | 5.6 | 50 | 0.96 | 10.0 | 4.0 | 50.0 |
| CDLL4691 | 6.2 | 50 | 0.95 | 10.0 | 5.0 | 45.0 |
| CDLL4692 | 6.8 | 50 | 0.90 | 10.0 | 5.1 | 35.0 |
| CDLL4693 | 7.5 | 50 | 0.75 | 10.0 | 5.7 | 31.8 |
| CDLL4694 | 8.2 | 50 | 0.50 | 1.0 | 6.2 | 29.0 |
| CDLL4695 | 8.7 | 50 | 0.10 | 1.0 | 6.6 | 27.4 |
| CDLL4696 | 9.1 | 50 | 0.08 | 1.0 | 6.9 | 26.2 |
| CDLL4697 | 10.0 | 50 | 0.10 | 1.0 | 7.6 | 24.8 |
| CDLL4698 | 11.0 | 50 | 0.11 | 0.05 | 8.4 | 21.6 |
| CDLL4699 | 12.0 | 50 | 0.12 | 0.05 | 9.1 | 20.4 |
| CDLL4700 | 13.0 | 50 | 0.13 | 0.05 | 9.8 | 19.0 |
| CDLL4701 | 14.0 | 50 | 0.14 | 0.05 | 10.6 | 17.5 |
| CDLL4702 | 15.0 | 50 | 0.15 | 0.05 | 11.4 | 16.3 |
| CDLL4703 | 16.0 | 50 | 0.16 | 0.05 | 12.1 | 15.4 |
| CDLL4704 | 17.0 | 50 | 0.17 | 0.05 | 12.9 | 14.5 |
| CDLL4705 | 18.0 | 50 | 0.18 | 0.05 | 13.6 | 13.2 |
| CDLL4706 | 19.0 | 50 | 0.19 | 0.05 | 14.4 | 12.5 |
| CDLL4707 | 20.0 | 50 | 0.20 | 0.01 | 15.2 | 11.9 |
| CDLL4708 | 22.0 | 50 | 0.22 | 0.01 | 16.7 | 10.8 |
| CDLL4709 | 24.0 | 50 | 0.24 | 0.01 | 18.2 | 9.9 |
| CDLL4710 | 25.0 | 50 | 0.25 | 0.01 | 19.0 | 9.5 |
| CDLL4711 | 27.0 | 50 | 0.27 | 0.01 | 20.4 | 8.8 |
| CDLL4712 | 28.0 | 50 | 0.28 | 0.01 | 21.2 | 8.5 |
| CDLL4713 | 30.0 | 50 | 0.30 | 0.01 | 22.8 | 7.9 |
| CDLL4714 | 33.0 | 50 | 0.33 | 0.01 | 25.0 | 7.2 |
| CDLL4715 | 36.0 | 50 | 0.36 | 0.01 | 27.3 | 6.6 |
| CDLL4716 | 39.0 | 50 | 0.39 | 0.01 | 29.8 | 6.1 |
| CDLL4717 | 43.0 | 50 | 0.43 | 0.01 | 32.6 | 5.5 |

NOTE 1 All types are \pm 5% tolerance. V_Z is measured with the Diode in thermal equilibrium at 25°C \pm 3°C.

NOTE 2 V_Z @ 100 μ A minus V_Z @ 10 μ A.

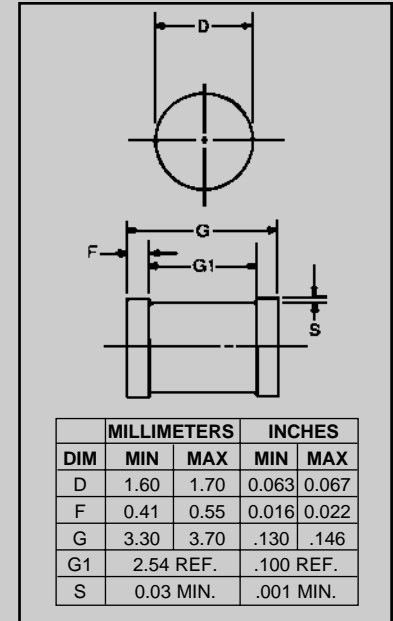


FIGURE 1

DESIGN DATA

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

LEAD FINISH: Tin / Lead

THERMAL RESISTANCE: (R_{ΘJC}): 100 °C/W maximum at L = 0 inch

THERMAL IMPEDANCE: (Z_{ΘJX}): 35 °C/W maximum

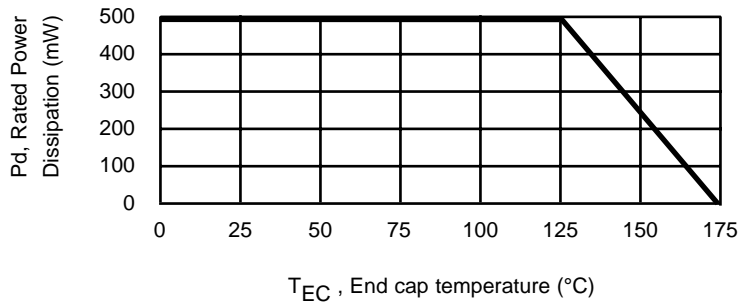
POLARITY: Diode to be operated with the banded (cathode) end positive.

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.



CDLL4678 thru CDLL4717

FIGURE 2



POWER DERATING CURVE

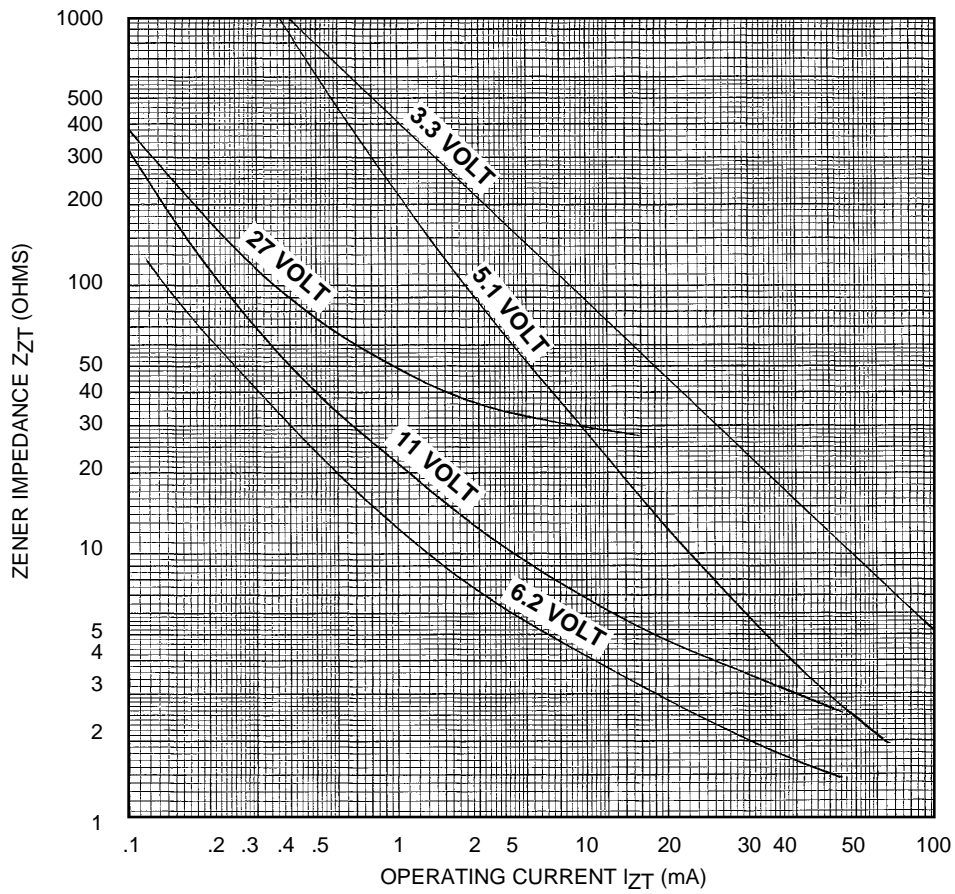


FIGURE 3

ZENER IMPEDANCE VS. OPERATING CURRENT

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