



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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- TEMPERATURE COMPENSATED ZENER REFERENCE DIODES
- LEADLESS PACKAGE FOR SURFACE MOUNT
- 9.1 VOLT NOMINAL ZENER VOLTAGE $\pm 5\%$
- LOW CURRENT OPERATING RANGE: 0.5 and 1.0 mA
- METALLURGICALLY BONDED
- DOUBLE PLUG CONSTRUCTION

CDLL4765
thru
CDLL4774A

MAXIMUM RATINGS

Operating Temperature: -65°C to +175°C
Storage Temperature: -65°C to +175°C
DC Power Dissipation: 500mW @ +50°C
Power Derating: 4 mW / °C above +50°C

REVERSE LEAKAGE CURRENT

$I_R = 10 \mu A$ @ 25°C & $V_R = 6Vdc$

ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified.

| TYPE NUMBERS | ZENER VOLTAGE | ZENER TEST CURRENT | MAXIMUM ZENER IMPEDANCE | MAXIMUM VOLTAGE TEMPERATURE STABILITY | TEMPERATURE RANGE | EFFECTIVE TEMPERATURE COEFFICIENT |
|--------------|----------------|--------------------|-------------------------|---------------------------------------|-------------------|-----------------------------------|
| | $V_Z @ I_{ZT}$ | I_{ZT} | Z_{ZT} | ΔV_{ZT} | | |
| | (Note 3) | | (Note 1) | (Note 2) | | |
| | VOLTS | mA | OHMS | mV | °C | % / °C |
| CDLL4765 | 9.1 | 0.5 | 350 | 68 | 0 to +75 | 0.01 |
| CDLL4765A | 9.1 | 0.5 | 350 | 141 | -55 to +100 | 0.01 |
| CDLL4766 | 9.1 | 0.5 | 350 | 34 | 0 to +75 | 0.005 |
| CDLL4766A | 9.1 | 0.5 | 350 | 70 | -55 to +100 | 0.005 |
| CDLL4767 | 9.1 | 0.5 | 350 | 14 | 0 to +75 | 0.002 |
| CDLL4767A | 9.1 | 0.5 | 350 | 28 | -55 to +100 | 0.002 |
| CDLL4768 | 9.1 | 0.5 | 350 | 6.8 | 0 to +75 | 0.001 |
| CDLL4768A | 9.1 | 0.5 | 350 | 14 | -55 to +100 | 0.001 |
| CDLL4769 | 9.1 | 0.5 | 350 | 3.4 | 0 to +75 | 0.0005 |
| CDLL4769A | 9.1 | 0.5 | 350 | 7 | -55 to +100 | 0.0005 |
| CDLL4770 | 9.1 | 1.0 | 200 | 68 | 0 to +75 | 0.01 |
| CDLL4770A | 9.1 | 1.0 | 200 | 141 | -55 to +100 | 0.01 |
| CDLL4771 | 9.1 | 1.0 | 200 | 34 | 0 to +75 | 0.005 |
| CDLL4771A | 9.1 | 1.0 | 200 | 70 | -55 to +100 | 0.005 |
| CDLL4772 | 9.1 | 1.0 | 200 | 14 | 0 to +75 | 0.002 |
| CDLL4772A | 9.1 | 1.0 | 200 | 28 | -55 to +100 | 0.002 |
| CDLL4773 | 9.1 | 1.0 | 200 | 6.8 | 0 to +75 | 0.001 |
| CDLL4773A | 9.1 | 1.0 | 200 | 14 | -55 to +100 | 0.001 |
| CDLL4774 | 9.1 | 1.0 | 200 | 3.4 | 0 to +75 | 0.0005 |
| CDLL4774A | 9.1 | 1.0 | 200 | 7 | -55 to +100 | 0.0005 |

NOTE 1 Zener impedance is derived by superimposing on I_{ZT} A 60Hz rms a.c. current equal to 10% of I_{ZT} .

NOTE 2 The maximum allowable change observed over the entire temperature range i.e., the diode voltage will not exceed the specified mV at any discrete temperature between the established limits, per JEDEC standard No.5.

NOTE 3 Zener voltage range equals 9.1 volts $\pm 5\%$

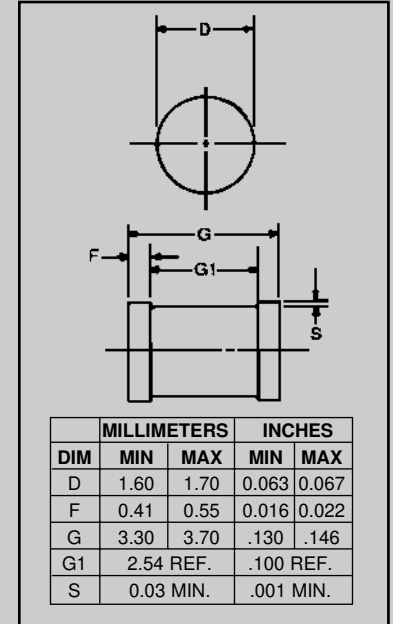


FIGURE 1

DESIGN DATA

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

LEAD FINISH: Tin / Lead

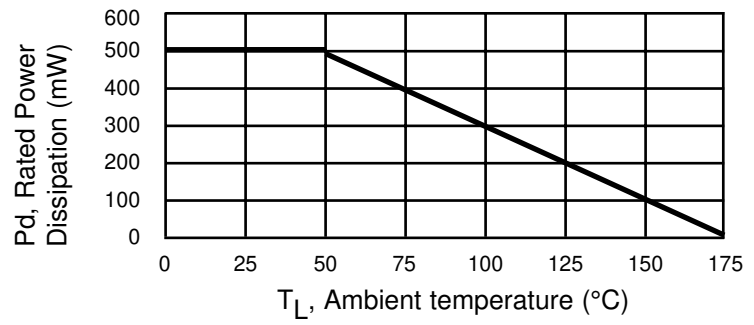
POLARITY: Diode to be operated with the banded (cathode) end positive.

MOUNTING POSITION: Any.

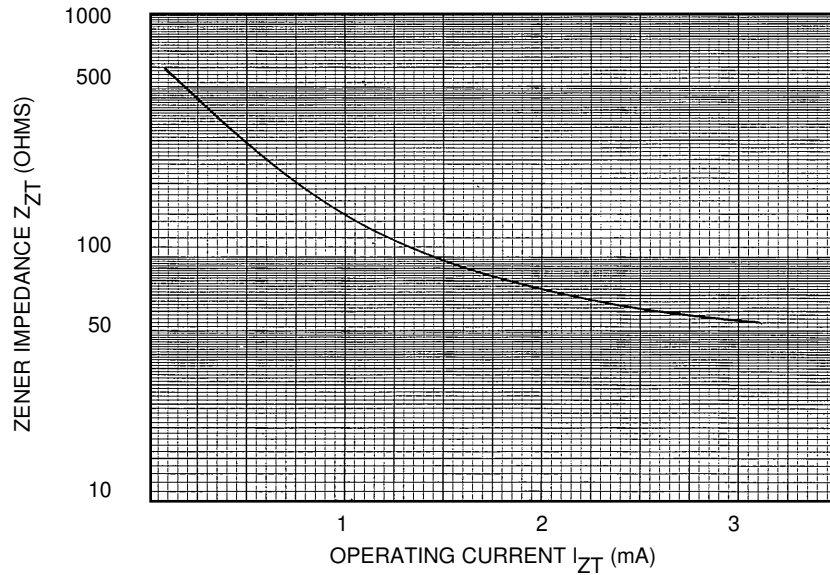
MOUNTING SURFACE SELECTION:
The Axial Coefficient of Expansion (COE) Of this Device is Approximately +6PPM/°C. The COE of the Mounting Surface System Should Be Selected To Provide A Suitable Match With This Device.



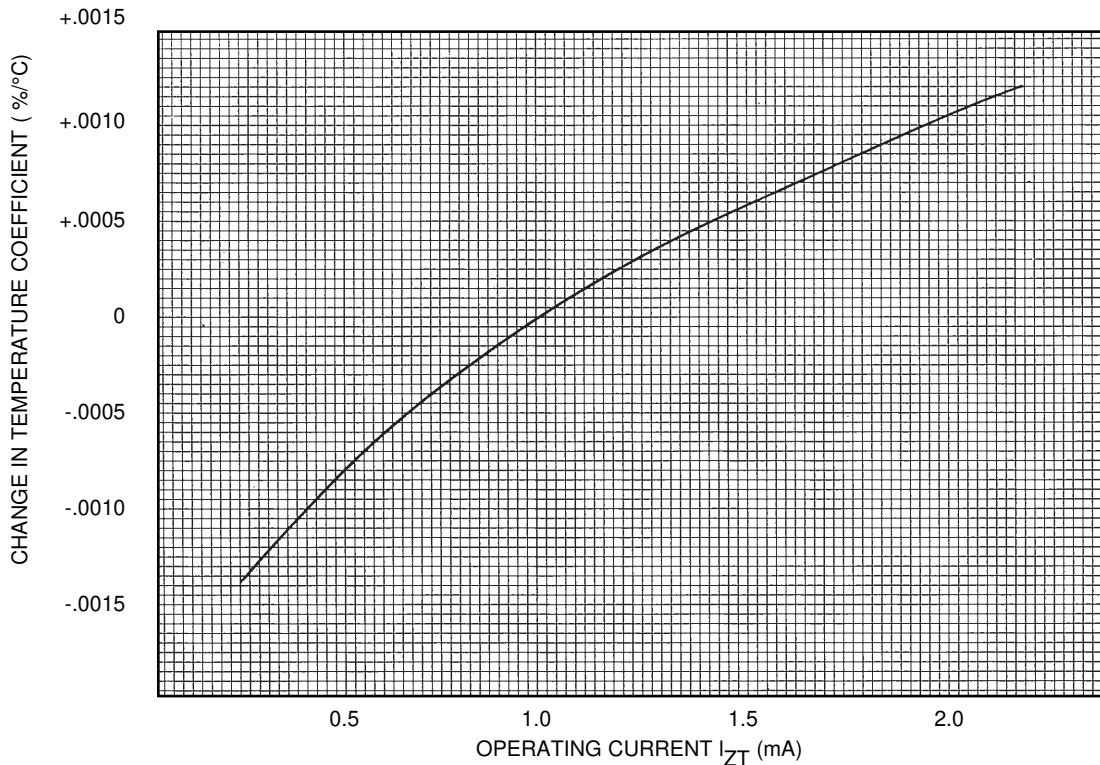
CDLL4765 thru CDLL4774A



**FIGURE 2
POWER DERATING CURVE**



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



**FIGURE 3
TYPICAL CHANGE OF TEMPERATURE COEFFICIENT
WITH CHANGE IN OPERATING CURRENT**