

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

CDLL4775  
thru  
CDLL4784A

## 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 &  $V_R = 6V_{dc}$

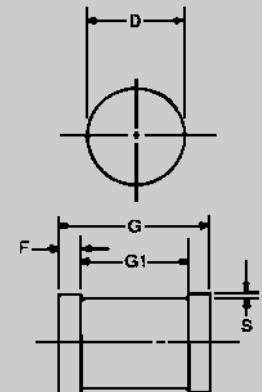
ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified.

CDI TYPE NUMBER	ZENNER VOLTAGE	ZENER TEST CURRENT	MAXIMUM DYNAMIC IMPEDANCE	VOLTAGE TEMPERATURE STABILITY	TEMPERATURE RANGE	EFFECTIVE TEMPERATURE COEFFICIENT
	$V_Z @ 1 Z_T$	$I_{ZT}$	$Z_{ZT}$	$\frac{\Delta V_Z}{V_Z \Delta T}$		
	(Note 3)		(Note 1)	MAXIMUM (Note 2)		
	VOLTS	mA	OHMS	mV	°C	% / °C
CDLL4775	8.5	0.5	200	64	0 to + 75	0.01
CDLL4775A	8.5	0.5	200	132	-55 to + 100	0.01
CDLL4776	8.5	0.5	200	32	0 to + 75	0.005
CDLL4776A	8.5	0.5	200	66	-55 to + 100	0.005
CDLL4777	8.5	0.5	200	13	0 to + 75	0.002
CDLL4777A	8.5	0.5	200	26	-55 to + 100	0.002
CDLL4778	8.5	0.5	200	6.4	0 to + 75	0.001
CDLL4778A	8.5	0.5	200	13	-55 to + 100	0.001
CDLL4779	8.5	0.5	200	3.2	0 to + 75	0.0005
CDLL4779A	8.5	0.5	200	6.6	-55 to + 100	0.0005
CDLL4780	8.5	1.0	100	64	0 to + 75	0.01
CDLL4780A	8.5	1.0	100	132	-55 to + 100	0.01
CDLL4781	8.5	1.0	100	32	0 to + 75	0.005
CDLL4781A	8.5	1.0	100	66	-55 to + 100	0.005
CDLL4782	8.5	1.0	100	13	0 to + 75	0.002
CDLL4782A	8.5	1.0	100	26	-55 to + 100	0.002
CDLL4783	8.5	1.0	100	6.4	0 to + 75	0.01
CDLL4783A	8.5	1.0	100	13	-55 to + 100	0.01
CDLL4784	8.5	1.0	100	3.2	0 to + 75	0.0005
CDLL4784A	8.5	1.0	100	6.6	-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 8.5 volts  $\pm 5\%$



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

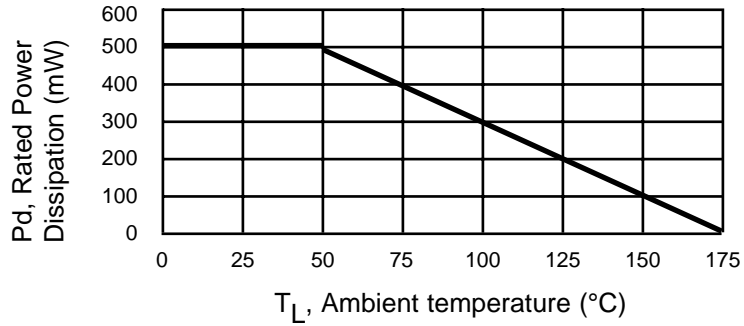
**POLARITY:** Diode to be operated with the banded (cathode) end positive.

**MOUNTING POSITION:** Any.

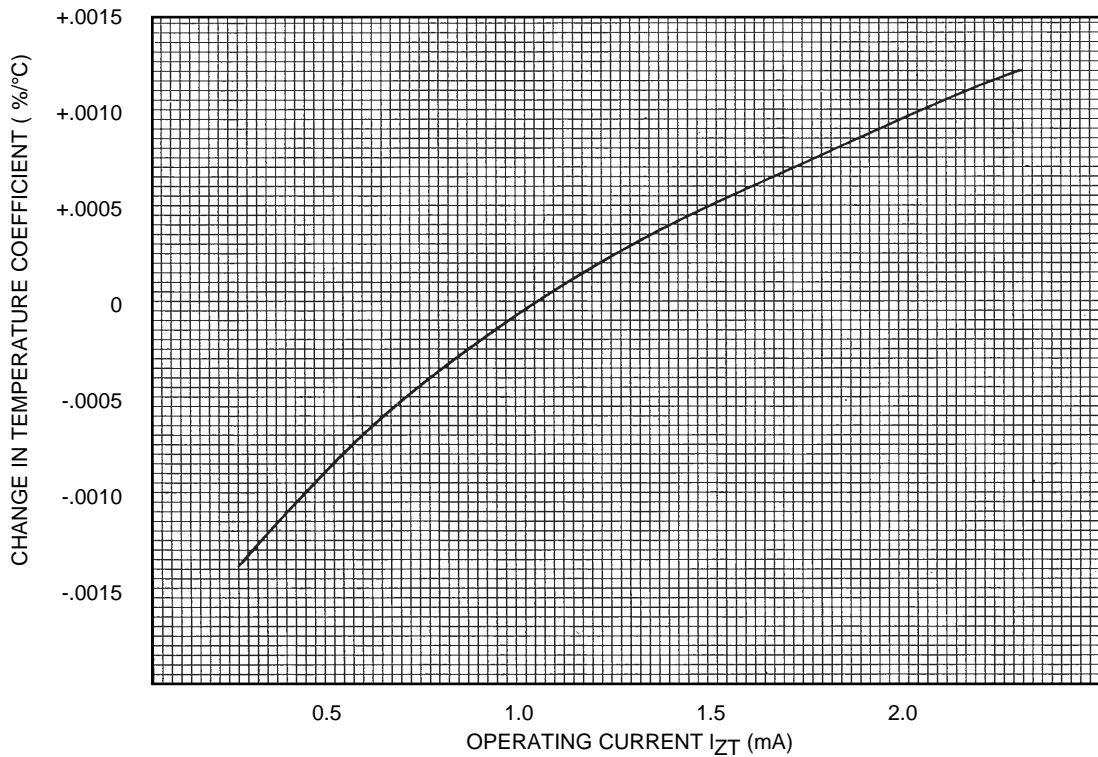
**MOUNTING SURFACE SELECTION:** The Axial Coefficient of Expansion (COE) Of this Device is Approximately +6PPM/°C. The COE of the Mounting Surface System Should Be Selected To Provide A Suitable Match With This Device.



# CDLL4775 thru CDLL4784A



**FIGURE 2**  
**POWER DERATING CURVE**



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