



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!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



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

**CDLL4678**  
thru  
**CDLL4717**

### MAXIMUM RATINGS

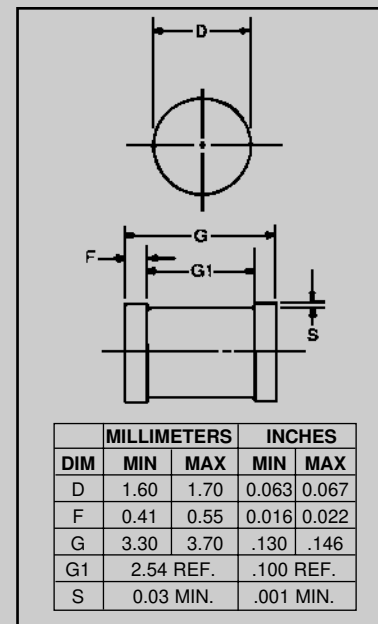
Operating Temperature: -65°C to +175°C  
Storage Temperature: -65°C to +175°C  
Power Dissipation: 500mW @ T<sub>EC</sub> +125°C  
DC Power Derating: 10 mW / °C above T<sub>EC</sub> +125°C  
Forward Voltage : 1.1 Volts maximum @ 200 mA

**ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified.**

CDI TYPE NUMBER (Note 1)	NOMINAL ZENER VOLTAGE V <sub>Z</sub>	ZENER TEST CURRENT I <sub>ZT</sub>	MAXIMUM VOLTAGE REGULATION %V <sub>Z</sub> (Note 2)	MAXIMUM REVERSE LEAKAGE CURRENT I <sub>R</sub> @ V <sub>R</sub>		MAXIMUM DC ZENER CURRENT I <sub>ZM</sub>
	VOLTS	$\mu$ A	VOLTS	$\mu$ 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<sub>Z</sub> is measured with the Diode in thermal equilibrium at 25°C  $\pm$  3°C.

**NOTE 2** V<sub>Z</sub> @ 100  $\mu$ A minus V<sub>Z</sub> @ 10 $\mu$ A.



**FIGURE 1**

### DESIGN DATA

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

**LEAD FINISH:** Tin / Lead

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

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

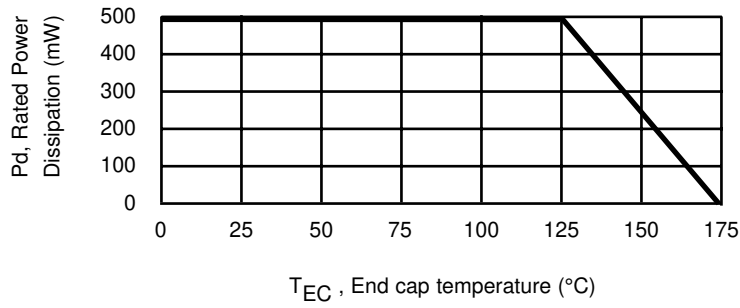
**POLARITY:** Diode to be operated with the banded (cathode) end positive.

**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.



# CDLL4678 thru CDLL4717

FIGURE 2



POWER DERATING CURVE

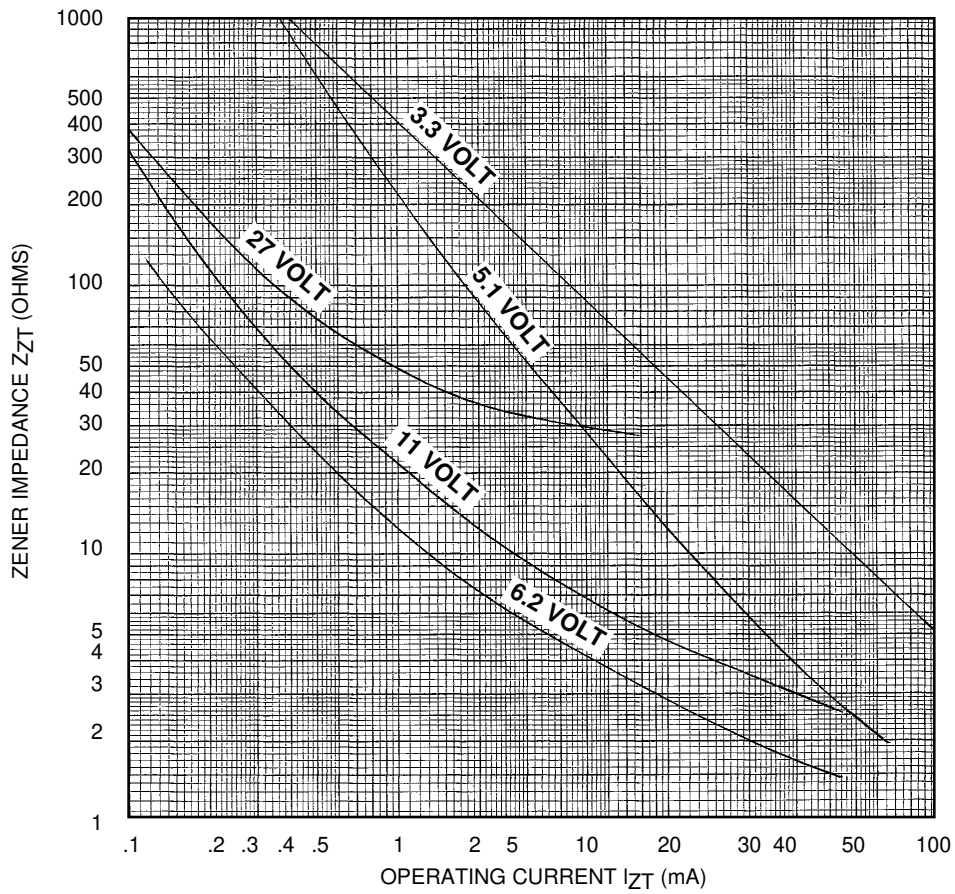


FIGURE 3

ZENER IMPEDANCE VS. OPERATING CURRENT