

- CURRENT REGULATOR DIODES
- LEADLESS PACKAGE FOR SURFACE MOUNT
- CONSTANT CURRENT OVER WIDE VOLTAGE RANGE
- HIGH SOURCE IMPEDANCE
- METALLURGICALLY BONDED

CDLL250  
thru  
CDLL257

## MAXIMUM RATINGS

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

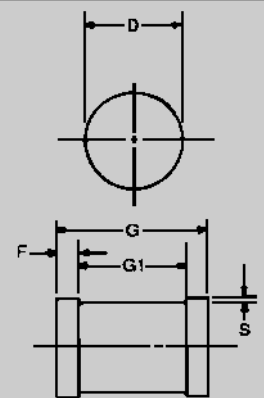
## ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified

TYPE NUMBER	REGULATOR CURRENT I <sub>p</sub> (mA) @ V <sub>S</sub> = 25V (Note 1)			MINIMUM DYNAMIC IMPEDANCE @V <sub>S</sub> = 25V Z <sub>S</sub> (K) (Note 2)	MINIMUM KNEE IMPEDANCE @V <sub>K</sub> = 6.0 V Z <sub>K</sub> (K) (Note 3)	MAXIMUM LIMITING VOLTAGE @ I <sub>L</sub> = 0.8 I <sub>p</sub> (min) V <sub>L</sub> (VOLTS)	PEAK OPERATING VOLTAGE VOLTS
	NOM	MIN	MAX				
CDLL250	5.10	4.59	5.61	100	4.0	3.67	80
CDLL251	5.60	5.04	6.16	90	4.0	4.03	80
CDLL252	6.20	5.58	6.82	80	3.0	4.46	70
CDLL253	6.80	6.12	7.48	70	2.0	4.90	70
CDLL254	7.50	6.75	8.25	50	1.5	5.40	60
CDLL255	8.20	7.38	9.02	30	1.5	5.90	60
CDLL256	9.10	8.19	10.01	20	1.0	6.55	50
CDLL257	10.00	9.00	11.10	10	1.0	7.20	50

**NOTE 1** Pulse measurement @ 1% duty cycle, 10 milliseconds maximum.

**NOTE 2** Z<sub>S</sub> is derived by superimposing A 90Hz RMS signal equal to 10% of V<sub>S</sub> on V<sub>S</sub>

**NOTE 3** Z<sub>K</sub> is derived by superimposing A 90Hz RMS signal equal to 10% of V<sub>K</sub> on V<sub>K</sub>



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
D	2.39	2.66	.094	.105
F	0.41	0.55	.016	.022
G	4.80	5.20	.189	.205
G1	4.11 REF.		.159 REF.	
S	0.03 MIN.		.001 MIN.	

FIGURE 1

## DESIGN DATA

**CASE:** DO-213AB, Hermetically sealed glass case. (MELF, LL41)

**LEAD FINISH:** Tin / Lead

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

**THERMAL IMPEDANCE:** (Z<sub>ΘJX</sub>): 25  
°C/W maximum

**POLARITY:** Diode to be operated with the band (cathode) end negative.

**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.

