

- 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

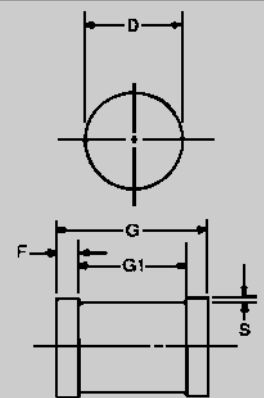
ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified

| TYPE NUMBER | REGULATOR CURRENT I_p (mA) @ $V_S = 25V$ (Note 1) | | | MINIMUM DYNAMIC IMPEDANCE @ $V_S = 25V$ Z_S (K) (Note 2) | MINIMUM KNEE IMPEDANCE @ $V_K = 6.0 V$ Z_K (K) (Note 3) | MAXIMUM LIMITING VOLTAGE @ $I_L = 0.8 I_p$ (min) V_L (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_S is derived by superimposing A 90Hz RMS signal equal to 10% of V_S on V_S

NOTE 3 Z_K is derived by superimposing A 90Hz RMS signal equal to 10% of V_K on V_K



| 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: ($R_{\theta JEC}$):
100 °C/W maximum at L = 0 inch

THERMAL IMPEDANCE: ($Z_{\theta JX}$): 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.



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