

CLL4150

**SURFACE MOUNT  
HIGH SPEED SILICON  
SWITCHING DIODE**



**SOD-80 CASE**



[www.centralemi.com](http://www.centralemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CLL4150 type is an ultra-high speed silicon switching diode manufactured by the epitaxial planar process, in a hermetically sealed glass surface mount package, designed for high speed switching applications.

**MARKING: CATHODE BAND**

**MAXIMUM RATINGS:** ( $T_A=25^{\circ}\text{C}$ )

Continuous Reverse Voltage  
Peak Repetitive Reverse Voltage  
Continuous Forward Current  
Peak Repetitive Forward Current  
Peak Forward Surge Current,  $t_p=1.0\mu\text{s}$   
Peak Forward Surge Current,  $t_p=1.0\text{s}$   
Power Dissipation  
Operating and Storage Junction Temperature  
Thermal Resistance

**SYMBOL**

$V_R$  50  
 $V_{RRM}$  50  
 $I_F$  300  
 $I_{FRM}$  600  
 $I_{FSM}$  4.0  
 $I_{FSM}$  1.0  
 $P_D$  500  
 $T_J, T_{stg}$  -65 to +200  
 $\Theta_{JA}$  350

**UNITS**

V  
V  
mA  
mA  
A  
A  
mW  
 $^{\circ}\text{C}$   
 $^{\circ}\text{C/W}$

**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

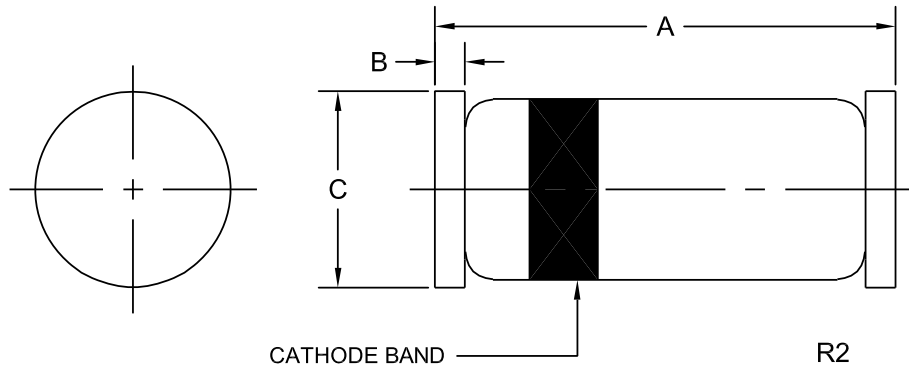
| SYMBOL   | TEST CONDITIONS   | MIN  | MAX  | UNITS |
|----------|---|------|------|-------|
| $I_R$    | $V_R=50\text{V}$  |      | 100  | nA    |
| $BV_R$   | $I_R=5.0\mu\text{A}$                                    | 75   |      | V     |
| $V_F$    | $I_F=1.0\text{mA}$                                      | 0.54 | 0.62 | V     |
| $V_F$    | $I_F=10\text{mA}$                                       | 0.66 | 0.74 | V     |
| $V_F$    | $I_F=50\text{mA}$                                       | 0.76 | 0.86 | V     |
| $V_F$    | $I_F=100\text{mA}$                                      | 0.82 | 0.92 | V     |
| $V_F$    | $I_F=200\text{mA}$                                      | 0.87 | 1.0  | V     |
| $C_T$    | $V_R=0$ , $f=1.0\text{ MHz}$                            |      | 4.0  | pF    |
| $t_{rr}$ | $I_R=I_F=10\text{mA}$ , $R_L=100\Omega$ , Rec. to 1.0mA |      | 4.0  | ns    |

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SOD-80 CASE - MECHANICAL OUTLINE



MARKING: CATHODE BAND

| DIMENSIONS |        |       |             |      |
|------------|--------|-------|-------------|------|
| SYMBOL     | INCHES |       | MILLIMETERS |      |
|            | MIN    | MAX   | MIN         | MAX  |
| A          | 0.130  | 0.146 | 3.30        | 3.71 |
| B          | 0.014  |       | 0.35        |      |
| C (DIA)    | 0.049  | 0.067 | 1.25        | 1.70 |

SOD-80 (REV:R2)

R3 (8-January 2010)