

CLL2003

**SURFACE MOUNT  
HIGH VOLTAGE SILICON  
SWITCHING DIODE**



**SOD-80 CASE**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CLL2003 type is a silicon switching diode manufactured by the epitaxial planar process, designed for applications requiring high voltage capability.

**MARKING: CATHODE BAND**

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

Continuous Reverse Voltage  
Peak Repetitive Reverse Voltage  
Average Forward Current  
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**

$V_R$  250  
 $V_{RRM}$  250  
 $I_O$  200  
 $I_F$  250  
 $I_{FRM}$  625  
 $I_{FSM}$  4.0  
 $I_{FSM}$  1.0  
 $P_D$  500  
 $T_J, T_{stg}$  -65 to +200  
 $\Theta_{JA}$  350

**UNITS**

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

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

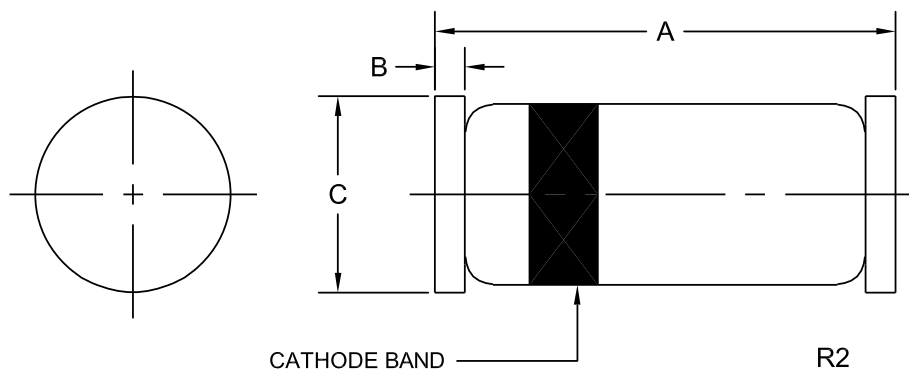
| SYMBOL   | TEST CONDITIONS                                           | MIN | MAX  | UNITS         |
|----------|-----------------------------------------------------------|-----|------|---------------|
| $I_R$    | $V_R=200\text{V}$                                         |     | 100  | nA            |
| $I_R$    | $V_R=200\text{V}, T_A=150^\circ\text{C}$                  |     | 100  | $\mu\text{A}$ |
| $BV_R$   | $I_R=100\mu\text{A}$                                      | 250 |      | V             |
| $V_F$    | $I_F=100\text{mA}$                                        |     | 1.00 | V             |
| $V_F$    | $I_F=200\text{mA}$                                        |     | 1.25 | V             |
| $C_T$    | $V_R=0, f=1.0\text{ MHz}$                                 |     | 5.0  | pF            |
| $t_{rr}$ | $I_F=I_R=30\text{mA}$ , Rec. to 3.0mA,<br>$R_L=100\Omega$ |     | 50   | ns            |

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**SOD-80 CASE - MECHANICAL OUTLINE**



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| 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)