**CLL2003**

**SURFACE MOUNT**
**HIGH VOLTAGE SILICON**
**SWITCHING DIODE**



**SOD-80 CASE**

Central Semiconductor Corp.

www.centralsemi.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°C) | **SYMBOL** | | **UNITS** |
|---|---|---|---|
| Continuous Reverse Voltage | $V_R$ | 250 | V |
| Peak Repetitive Reverse Voltage | $V_{RRM}$ | 250 | V |
| Average Forward Current | $I_O$ | 200 | mA |
| Continuous Forward Current | $I_F$ | 250 | mA |
| Peak Repetitive Forward Current | $I_{FRM}$ | 625 | mA |
| Peak Forward Surge Current, tp=1.0μs | $I_{FSM}$ | 4.0 | A |
| Peak Forward Surge Current, tp=1.0s | $I_{FSM}$ | 1.0 | A |
| Power Dissipation | $P_D$ | 500 | mW |
| Operating and Storage Junction Temperature | $T_J$, $T_{stg}$ | -65 to +200 | °C |
| Thermal Resistance | $\Theta_{JA}$ | 350 | °C/W |

**ELECTRICAL CHARACTERISTICS:** ($T_A$=25°C unless otherwise noted)

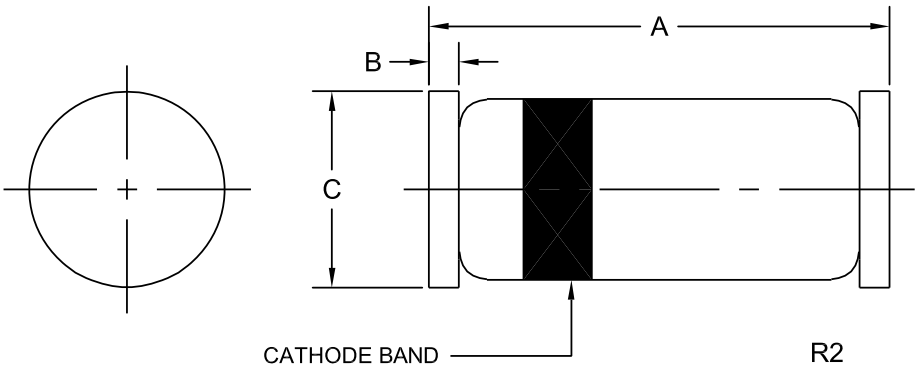
| **SYMBOL** | **TEST CONDITIONS** | **MIN** | **MAX** | **UNITS** |
|---|---|---|---|---|
| $I_R$ | $V_R$=200V | | 100 | nA |
| $I_R$ | $V_R$=200V, $T_A$=150°C | | 100 | μA |
| $BV_R$ | $I_R$=100μA | 250 | | V |
| $V_F$ | $I_F$=100mA | | 1.00 | V |
| $V_F$ | $I_F$=200mA | | 1.25 | V |
| $C_T$ | $V_R$=0, f=1.0 MHz | | 5.0 | pF |
| $t_{rr}$ | $I_F$=$I_R$=30mA, Rec. to 3.0mA, $R_L$=100Ω | | 50 | ns |

R3 (8-January 2010)

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## SOD-80 CASE - MECHANICAL OUTLINE




**MARKING: CATHODE BAND**

| DIMENSIONS | | | | |
|---|---|---|---|---|
| | INCHES | | MILLIMETERS | |
| SYMBOL | 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)