

CLL2003

**SURFACE MOUNT
HIGH VOLTAGE SILICON
SWITCHING DIODE**



SOD-80 CASE



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
 θ_{JA} 350

UNITS

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

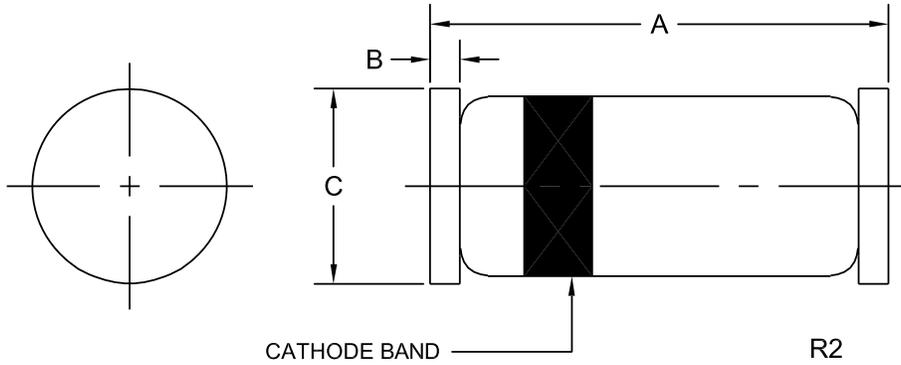
ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

| 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 | μA |
| 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} | $I_F=I_R=30\text{mA}, \text{Rec. to } 3.0\text{mA},$ $R_L=100\Omega$ | | 50 | ns |

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SOD-80 CASE - MECHANICAL OUTLINE



MARKING: CATHODE BAND

| SYMBOL | DIMENSIONS | | | |
|---------|------------|-------|-------------|------|
| | 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)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

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