

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  
 $^\circ\text{C}$   
 $^\circ\text{C/W}$

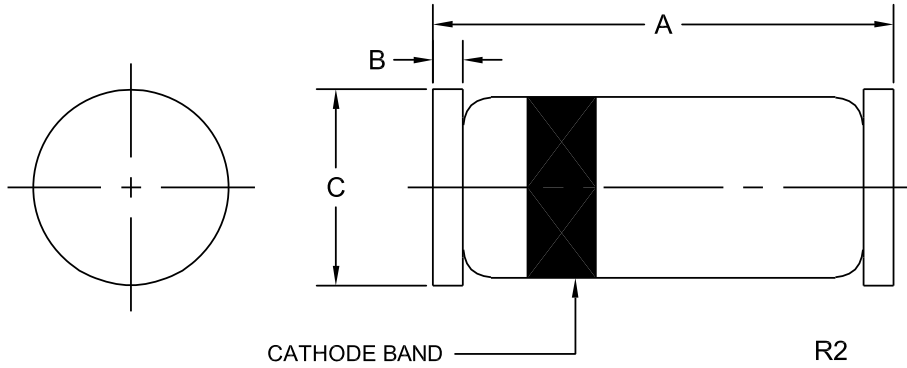
**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

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
$t_{rr}$	$I_F=I_R=30\text{mA}, \text{Rec. to } 3.0\text{mA},$ $R_L=100\Omega$		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



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### 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

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### DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2<sup>nd</sup> 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

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### CONTACT US

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