

CMOD3003

**SURFACE MOUNT  
LOW LEAKAGE  
SILICON SWITCHING DIODE**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMOD3003 type is a silicon switching diode manufactured by the epitaxial planar process, epoxy molded in a ULTRAmimi™ surface mount package, designed for switching applications requiring an extremely low leakage diode.

**MARKING CODE: 3C**

**ULTRAmimi™**



**SOD-523 CASE**

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

	<b>SYMBOL</b>		<b>UNITS</b>
Continuous Reverse Voltage	$V_R$	180	V
Average Rectified Current	$I_O$	200	mA
Continuous Forward Current	$I_F$	600	mA
Peak Repetitive Forward Current	$I_{FRM}$	700	mA
Peak Forward Surge Current, $t_p=1.0\mu\text{s}$	$I_{FSM}$	2.0	A
Peak Forward Surge Current, $t_p=1.0\text{s}$	$I_{FSM}$	1.0	A
Power Dissipation	$P_D$	250	mW
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
Thermal Resistance	$\theta_{JA}$	500	$^\circ\text{C/W}$

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

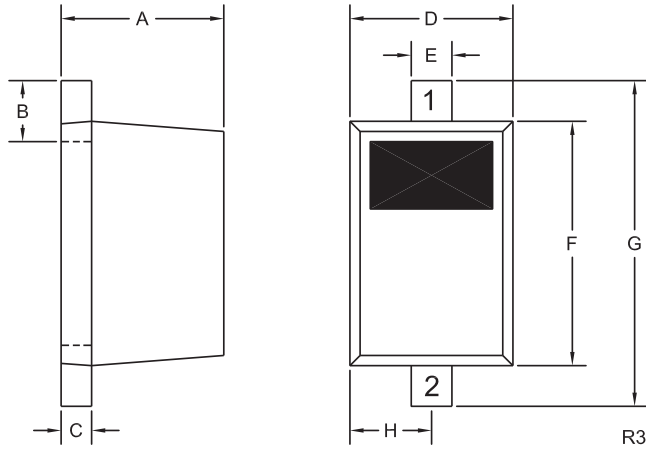
<b>SYMBOL</b>	<b>TEST CONDITIONS</b>	<b>MIN</b>	<b>MAX</b>	<b>UNITS</b>
$I_R$	$V_R=125\text{V}$		1.0	nA
$I_R$	$V_R=125\text{V}, T_A=150^\circ\text{C}$		3.0	$\mu\text{A}$
$I_R$	$V_R=180\text{V}$		10	nA
$I_R$	$V_R=180\text{V}, T_A=150^\circ\text{C}$		5.0	$\mu\text{A}$
$BV_R$	$I_R=5.0\mu\text{A}$	200		V
$V_F$	$I_F=1.0\text{mA}$	0.62	0.72	V
$V_F$	$I_F=10\text{mA}$	0.72	0.83	V
$V_F$	$I_F=50\text{mA}$	0.80	0.89	V
$V_F$	$I_F=100\text{mA}$	0.83	0.93	V
$V_F$	$I_F=200\text{mA}$	0.87	1.10	V
$V_F$	$I_F=300\text{mA}$	0.90	1.15	V
$C_T$	$V_R=0, f=1.0\text{MHz}$		4.0	pF

R3 (11-April 2011)

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**SOD-523 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

- 1) Cathode
- 2) Anode

**MARKING CODE: 3C**

<b>DIMENSIONS</b>				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.020	0.031	0.50	0.80
B	0.008	0.016	0.20	0.40
C	0.002	0.008	0.05	0.20
D	0.028	0.035	0.70	0.90
E	0.008	0.014	0.20	0.35
F	0.039	0.055	1.00	1.40
G	0.055	0.071	1.40	1.80
H	0.016		0.40	

SOD-523 (REV: R3)

R3 (11-April 2011)

## 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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