

CMDD3003

**SURFACE MOUNT
LOW LEAKAGE SILICON
SWITCHING DIODE**



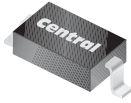
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DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMDD3003 type is a silicon switching diode manufactured by the epitaxial planar process, epoxy molded in a SUPERmini™ surface mount package, designed for switching applications requiring a extremely low leakage diode.

MARKING CODE: 03C

SUPERmini™



SOD-323 CASE

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

Continuous Reverse Voltage

Average Rectified 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

I_O

I_F

I_{FRM}

I_{FSM}

I_{FSM}

P_D

T_J, T_{stg}

θ_{JA}

180

200

600

700

2.0

1.0

250

-65 to +150

500

UNITS

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

$V_R=125\text{V}$

1.0

nA

I_R

$V_R=125\text{V}, T_A=150^\circ\text{C}$

3.0

μA

I_R

$V_R=180\text{V}$

10

nA

I_R

$V_R=180\text{V}, T_A=150^\circ\text{C}$

5.0

μA

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

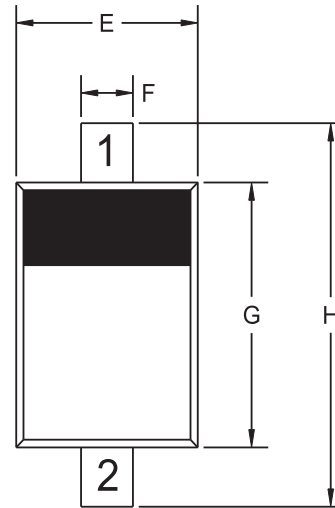
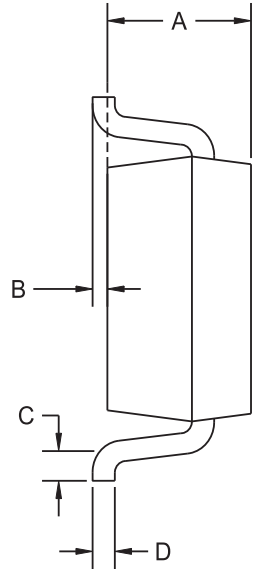
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SURFACE MOUNT
LOW LEAKAGE SILICON
SWITCHING DIODE



SOD-323 CASE - MECHANICAL OUTLINE



R4

LEAD CODE:

- 1) CATHODE
- 2) ANODE

MARKING CODE: 03C

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.031	0.039	0.80	1.00
B	0.000	0.004	0.00	0.10
C	0.008	-	0.20	-
D	0.004	0.007	0.11	0.19
E	0.045	0.053	1.15	1.35
F	-	0.014	-	0.35
G	0.063	0.071	1.60	1.80
H	0.094	0.102	2.40	2.60

SOD-323 (REV: R4)

R1 (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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