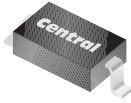


CMDD2004

**SURFACE MOUNT  
HIGH VOLTAGE  
SILICON SWITCHING DIODE**

**SUPERmini™**



**SOD-323 CASE**

**Central™**  
Semiconductor Corp.

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

**DESCRIPTION:**

The Central Semiconductor CMDD2004 is a high voltage silicon switching diode manufactured by the epitaxial planar process, epoxy molded in a SUPERmini™ surface mount package, designed for applications requiring high voltage capability.

**MARKING CODE: C24**

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

Continuous Reverse Voltage  
Peak Repetitive Reverse Voltage  
Peak Repetitive Reverse 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		UNITS
$V_R$	250	V
$V_{RRM}$	300	V
$I_O$	200	mA
$I_F$	225	mA
$I_{FRM}$	625	mA
$I_{FSM}$	4.0	A
$I_{FSM}$	1.0	A
$P_D$	250	mW
$T_J, T_{stg}$	-65 to +175	$^\circ\text{C}$
$\theta_{JA}$	600	$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
$I_R$	$V_R=240\text{V}$		100	nA
$I_R$	$V_R=240\text{V}, T_A=150^\circ\text{C}$		100	$\mu\text{A}$
$BV_R$	$I_R=100\mu\text{A}$	300		V
$V_F$	$I_F=100\text{mA}$		1.0	V
$C_T$	$V_R=0, f=1.0\text{MHz}$		5.0	pF
$t_{rr}$	$I_F=I_R=30\text{mA}, I_{rr}=3.0\text{mA}, R_L=100\Omega$		50	ns

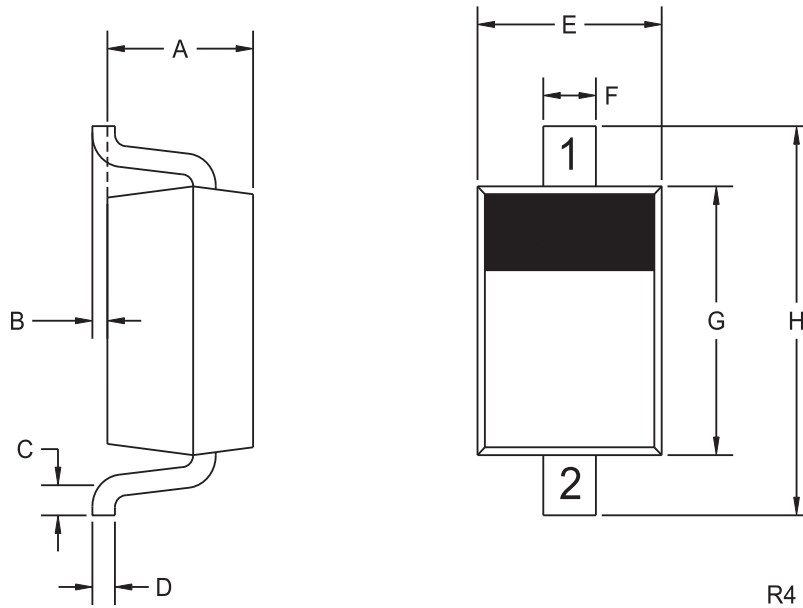
R6 (24-June 2011)

CMDD2004

SURFACE MOUNT  
HIGH VOLTAGE  
SILICON SWITCHING DIODE



SOD-323 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Cathode
- 2) Anode

MARKING CODE: C24

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)

R6 (24-June 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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### 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).

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### CONTACT US

#### Corporate Headquarters & Customer Support Team

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**Worldwide Distributors:**  
[www.centrasemi.com/wwdistributors](http://www.centrasemi.com/wwdistributors)

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For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: [www.centrasemi.com/terms](http://www.centrasemi.com/terms)