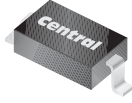


CMDD2004

**SURFACE MOUNT  
HIGH VOLTAGE  
SILICON SWITCHING DIODE**

**SUPERmini™**



**SOD-323 CASE**



[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**

$V_R$  250  
 $V_{RRM}$  300  
 $I_O$  200  
 $I_F$  225  
 $I_{FRM}$  625  
 $I_{FSM}$  4.0  
 $I_{FSM}$  1.0  
 $P_D$  250  
 $T_J, T_{stg}$  -65 to +175  
 $\Theta_{JA}$  600

**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 | 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            |

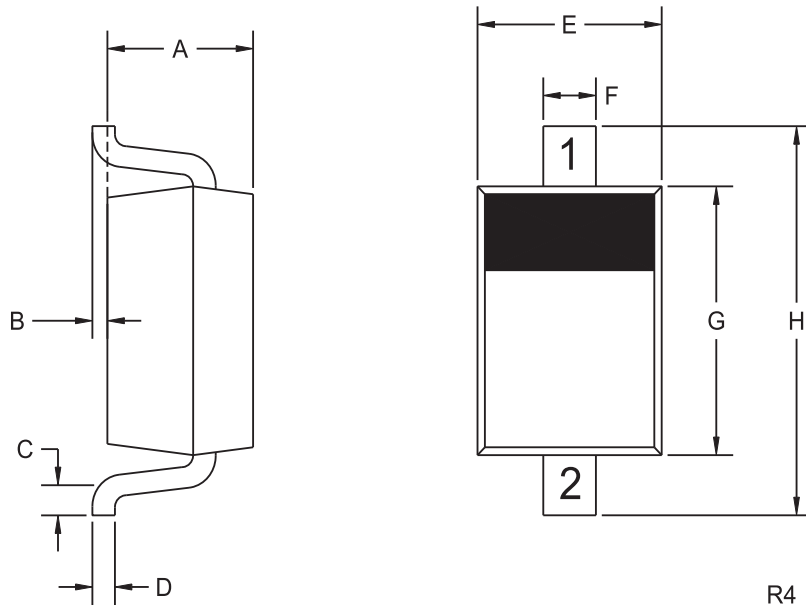
R6 (24-June 2011)

CMDD2004

**SURFACE MOUNT  
HIGH VOLTAGE  
SILICON SWITCHING DIODE**



**SOD-323 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

- 1) Cathode
- 2) Anode

**MARKING CODE: C24**

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