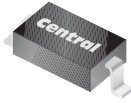


CMDD2004

**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            |

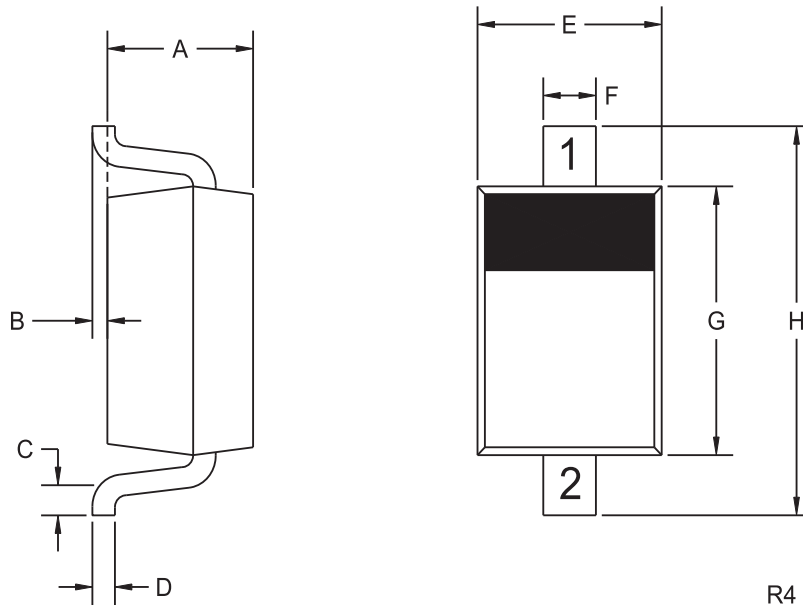
R6 (24-June 2011)

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)