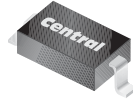


CMHD2003

**SURFACE MOUNT  
HIGH VOLTAGE SILICON  
SWITCHING DIODE**



**SOD-123 CASE**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMHD2003 is a Silicon Switching Diode, manufactured by the epitaxial planar process, epoxy molded in a SOD-123 surface mount package, designed for applications requiring high voltage capability.

**MARKING CODE: C03**

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

|                                                                            | SYMBOL         |             | UNITS              |
|----------------------------------------------------------------------------|----------------|-------------|--------------------|
| Continuous Reverse Voltage                                                 | $V_R$          | 250         | V                  |
| Continuous Forward Current                                                 | $I_F$          | 250         | mA                 |
| Average Rectified Current                                                  | $I_O$          | 200         | mA                 |
| Peak Repetitive Forward Current                                            | $I_{FRM}$      | 625         | mA                 |
| Peak Forward Surge Current, $t_p < 1.0\text{s}$ ( $T_C=25^\circ\text{C}$ ) | $I_{FSM}$      | 1.0         | A                  |
| Power Dissipation                                                          | $P_D$          | 400         | mW                 |
| Operating and Storage Junction Temperature                                 | $T_J, T_{stg}$ | -65 to +150 | $^\circ\text{C}$   |
| Thermal Resistance                                                         | $\Theta_{JA}$  | 312.5       | $^\circ\text{C/W}$ |

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

| SYMBOL   | TEST CONDITIONS                                                    | MIN | TYP | MAX | UNITS         |
|----------|--------------------------------------------------------------------|-----|-----|-----|---------------|
| $I_R$    | $V_R=200\text{V}$                                                  |     |     | 100 | nA            |
| $I_R$    | $V_R=200\text{V}, T_C=100^\circ\text{C}$                           |     |     | 15  | $\mu\text{A}$ |
| $V_F$    | $I_F=100\text{mA}$                                                 |     |     | 1.0 | V             |
| $C_T$    | $V_R=0, f=1.0\text{MHz}$                                           |     | 1.5 |     | pF            |
| $t_{rr}$ | $I_F=I_R=30\text{mA}, R_L=100\Omega, \text{Rec. to } 3.0\text{mA}$ |     |     | 50  | ns            |

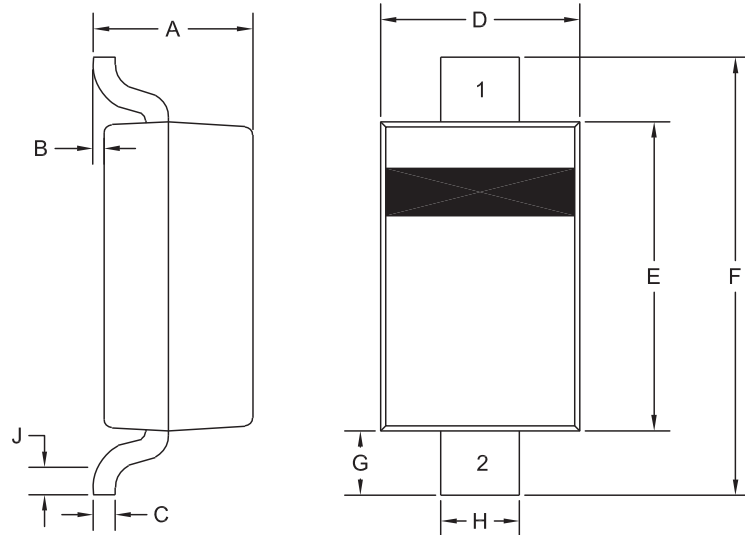
R5 (5-August 2010)

CMHD2003

**SURFACE MOUNT  
HIGH VOLTAGE SILICON  
SWITCHING DIODE**



**SOD-123 CASE - MECHANICAL OUTLINE**



R5

**LEAD CODE**

- 1) Cathode
- 2) Anode

**MARKING CODE: C03**

| DIMENSIONS |        |       |             |      |
|------------|--------|-------|-------------|------|
| SYMBOL     | INCHES |       | MILLIMETERS |      |
|            | MIN    | MAX   | MIN         | MAX  |
| A          | 0.037  | 0.053 | 0.95        | 1.35 |
| B          | 0.000  | 0.005 | 0.00        | 0.12 |
| C          | -      | 0.008 | -           | 0.20 |
| D          | 0.055  | 0.071 | 1.40        | 1.80 |
| E          | 0.098  | 0.110 | 2.50        | 2.80 |
| F          | 0.142  | 0.154 | 3.60        | 3.90 |
| G          | 0.016  | -     | 0.40        | -    |
| H          | 0.020  | 0.028 | 0.50        | 0.70 |
| J          | 0.010  | -     | 0.25        | -    |

SOD-123 (REV:R5)

R5 (5-August 2010)

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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**

**Corporate Headquarters & Customer Support Team**

Central Semiconductor Corp.  
145 Adams Avenue  
Hauppauge, NY 11788 USA  
Main Tel: (631) 435-1110  
Main Fax: (631) 435-1824  
Support Team Fax: (631) 435-3388  
[www.centrasemi.com](http://www.centrasemi.com)

**Worldwide Field Representatives:**  
[www.centrasemi.com/wwreps](http://www.centrasemi.com/wwreps)

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