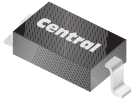


CMHD2003

**SURFACE MOUNT
HIGH VOLTAGE SILICON
SWITCHING DIODE**



SOD-123 CASE



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 | Θ_{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 | μA |
| 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 |

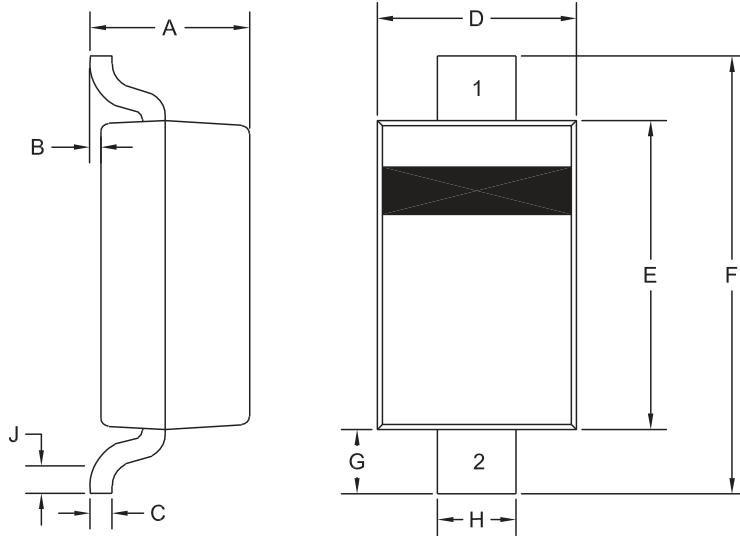
R5 (5-August 2010)

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)

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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