

CMPD7000

**SURFACE MOUNT  
DUAL, IN SERIES  
SILICON SWITCHING DIODES**



**SOT-23 CASE**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPD7000 type is a ultra-high speed silicon switching diode manufactured by the epitaxial planar process, in an epoxy molded surface mount package, connected in a series configuration, designed for high speed switching applications.

**MARKING CODE: C5C**

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

Peak Repetitive Reverse Voltage  
Average Forward Current  
Peak Forward Current  
Power Dissipation  
Operating and Storage Junction Temperature  
Thermal Resistance

**SYMBOL**

$V_{RRM}$  100  
 $I_O$  200  
 $I_{FM}$  500  
 $P_D$  350  
 $T_J, T_{stg}$  -65 to +150  
 $\theta_{JA}$  357

**UNITS**

V  
mA  
mA  
mW  
 $^{\circ}\text{C}$   
 $^{\circ}\text{C/W}$

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

| SYMBOL   | TEST CONDITIONS                                                    | MIN  | TYP | MAX  | UNITS         |
|----------|--------------------------------------------------------------------|------|-----|------|---------------|
| $I_R$    | $V_R=50\text{V}$                                                   |      |     | 300  | nA            |
| $I_R$    | $V_R=50\text{V}, T_A=125^{\circ}\text{C}$                          |      |     | 100  | $\mu\text{A}$ |
| $I_R$    | $V_R=100\text{V}$                                                  |      |     | 500  | nA            |
| $BV_R$   | $I_R=100\mu\text{A}$                                               | 100  |     |      | V             |
| $V_F$    | $I_F=1.0\text{mA}$                                                 | 0.55 |     | 0.70 | V             |
| $V_F$    | $I_F=10\text{mA}$                                                  | 0.67 |     | 0.82 | V             |
| $V_F$    | $I_F=100\text{mA}$                                                 | 0.75 |     | 1.10 | V             |
| $C_T$    | $V_R=0, f=1.0\text{MHz}$                                           |      | 1.5 | 2.6  | pF            |
| $t_{rr}$ | $I_R=I_F=10\text{mA}, R_L=100\Omega, \text{Rec. to } 1.0\text{mA}$ |      | 2.0 | 4.0  | ns            |

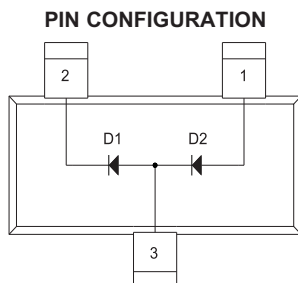
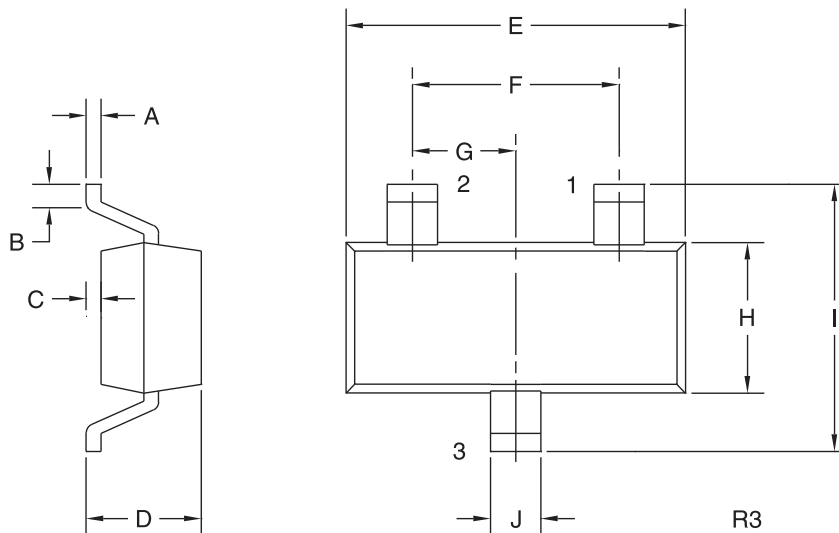
R7 (27-January 2010)

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**SOT-23 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

- 1) Anode D2
- 2) Cathode D1
- 3) Anode D1, Cathode D2

**MARKING CODE: C5C**

| DIMENSIONS |        |       |             |      |
|------------|--------|-------|-------------|------|
| SYMBOL     | INCHES |       | MILLIMETERS |      |
|            | MIN    | MAX   | MIN         | MAX  |
| A          | 0.003  | 0.007 | 0.08        | 0.18 |
| B          | 0.006  | -     | 0.15        | -    |
| C          | -      | 0.005 | -           | 0.13 |
| D          | 0.035  | 0.043 | 0.89        | 1.09 |
| E          | 0.110  | 0.120 | 2.80        | 3.05 |
| F          | 0.075  |       | 1.90        |      |
| G          | 0.037  |       | 0.95        |      |
| H          | 0.047  | 0.055 | 1.19        | 1.40 |
| I          | 0.083  | 0.098 | 2.10        | 2.49 |
| J          | 0.014  | 0.020 | 0.35        | 0.50 |

SOT-23 (REV: R3)

R7 (27-January 2010)

## 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

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