



THE DATASHEET OF CMPD7000 TR



CMPD7000

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



SOT-23 CASE



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
 θ_{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)

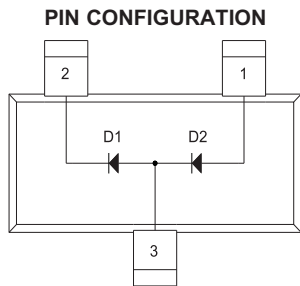
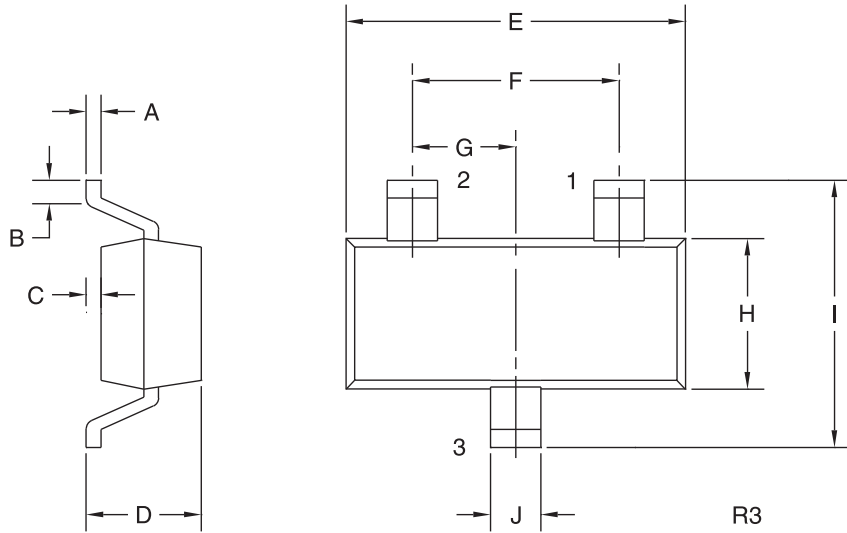
| SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|----------|--|------|-----|------|---------------|
| I_R | $V_R=50\text{V}$ | | | 300 | nA |
| I_R | $V_R=50\text{V}, T_A=125^\circ\text{C}$ | | | 100 | μA |
| I_R | $V_R=100\text{V}$ | | | 500 | nA |
| BV_R | $I_R=100\mu\text{A}$ | 100 | | | V |
| 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

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| 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



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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- ✓ Obsolete Management
- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management