

CMPD3003
 CMPD3003A
 CMPD3003C
 CMPD3003S

**SURFACE MOUNT
 LOW LEAKAGE
 SILICON SWITCHING DIODE**



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPD3003 series types are silicon switching diodes manufactured by the epitaxial planar process, designed for switching applications requiring an extremely low leakage diode.



SOT-23 CASE

The following configurations are available:

CMPD3003 SINGLE
 CMPD3003A DUAL, COMMON ANODE
 CMPD3003C DUAL, COMMON CATHODE
 CMPD3003S DUAL, IN SERIES

MARKING CODE: LLO
MARKING CODE: LLA
MARKING CODE: LLC
MARKING CODE: LLS

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

Continuous Reverse Voltage
 Average Forward 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

V_R 180
 I_O 200
 I_F 600
 I_{FRM} 700
 I_{FSM} 2.0
 I_{FSM} 1.0
 P_D 350
 T_J, T_{stg} -65 to +150
 θ_{JA} 357

UNITS

V
 mA
 mA
 mA
 A
 A
 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 | MAX | UNITS |
|--------|--|------|------|---------------|
| I_R | $V_R=125\text{V}$ | | 1.0 | nA |
| I_R | $V_R=125\text{V}, T_A=150^\circ\text{C}$ | | 3.0 | μA |
| I_R | $V_R=180\text{V}$ | | 10 | nA |
| I_R | $V_R=180\text{V}, T_A=150^\circ\text{C}$ | | 5.0 | μA |
| BV_R | $I_R=5.0\mu\text{A}$ | 200 | | V |
| V_F | $I_F=1.0\text{mA}$ | 0.62 | 0.72 | V |
| V_F | $I_F=10\text{mA}$ | 0.72 | 0.83 | V |
| V_F | $I_F=50\text{mA}$ | 0.80 | 0.89 | V |
| V_F | $I_F=100\text{mA}$ | 0.83 | 0.93 | V |
| V_F | $I_F=200\text{mA}$ | 0.87 | 1.10 | V |
| V_F | $I_F=300\text{mA}$ | 0.90 | 1.15 | V |
| C_T | $V_R=0, f=1.0\text{MHz}$ | | 4.0 | pF |

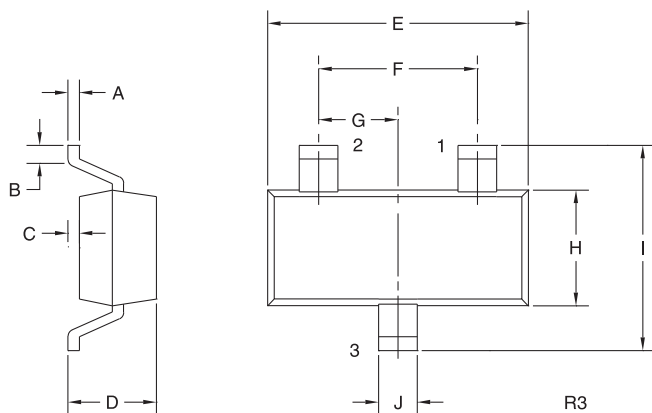
R4 (25-January 2010)

CMPD3003
 CMPD3003A
 CMPD3003C
 CMPD3003S



**SURFACE MOUNT
 LOW LEAKAGE
 SILICON SWITCHING DIODE**

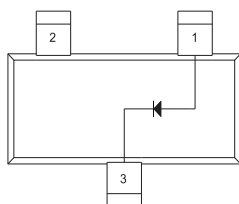
SOT-23 CASE - MECHANICAL OUTLINE



| 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)

PIN CONFIGURATIONS

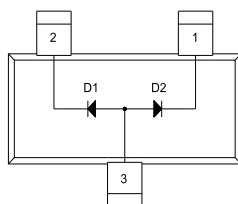


CMPD3003

LEAD CODE:

- 1) Anode
- 2) No Connection
- 3) Cathode

MARKING CODE: LLO

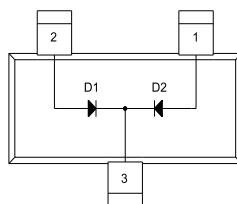


CMPD3003A

LEAD CODE:

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

MARKING CODE: LLA

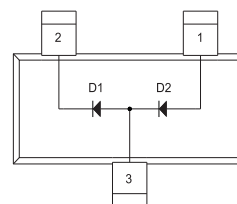


CMPD3003C

LEAD CODE:

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

MARKING CODE: LLC



CMPD3003S

LEAD CODE:

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

MARKING CODE: LLS

R4 (25-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

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

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
www.centrasemi.com/wwdistributors

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centrasemi.com/terms