

CMPD3003  
CMPD3003A  
CMPD3003C  
CMPD3003S

**SURFACE MOUNT  
LOW LEAKAGE  
SILICON SWITCHING DIODE**



**SOT-23 CASE**



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

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  
 $\theta_{JA}$  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  | $\mu\text{A}$ |
| $I_R$  | $V_R=180\text{V}$                        |      | 10   | nA            |
| $I_R$  | $V_R=180\text{V}, T_A=150^\circ\text{C}$ |      | 5.0  | $\mu\text{A}$ |
| $BV_R$ | $I_R=5.0\mu\text{A}$                     | 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            |

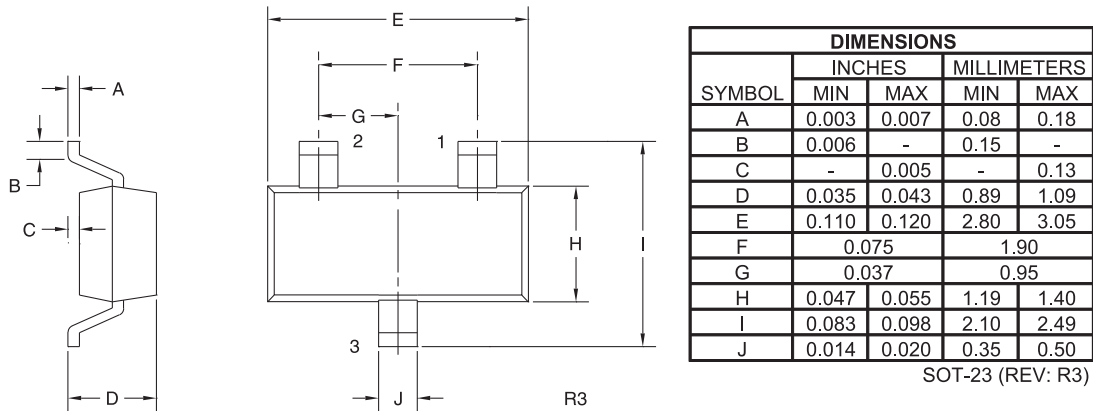
R4 (25-January 2010)

CMPD3003  
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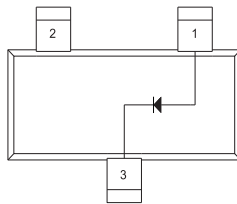
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## SOT-23 CASE - MECHANICAL OUTLINE



## PIN CONFIGURATIONS

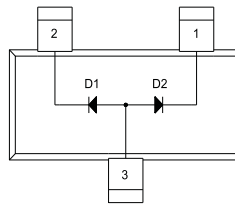


**CMPD3003**

**LEAD CODE:**

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

**MARKING CODE: LLO**

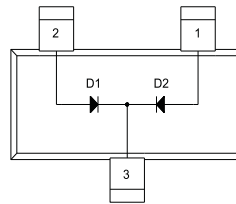


**CMPD3003A**

**LEAD CODE:**

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

**MARKING CODE: LLA**

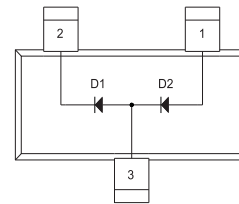


**CMPD3003C**

**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)