

**SURFACE MOUNT  
HIGH CURRENT  
SILICON SWITCHING DIODE**



## SOT-23 CASE



**www.centrasemi.com**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPD1001 series types are silicon switching diodes manufactured by the epitaxial planar process, designed for applications requiring high current capability.

The following configurations are available:

|           |                    |
|-----------|--------------------|
| CMPD1001  | SINGLE             |
| CMPD1001A | DUAL, COMMON ANODE |
| CMPD1001S | DUAL, IN SERIES    |

**MARKING CODE: L20**

**MARKING CODE: L22**

**MARKING CODE: L21**

| MAXIMUM RATINGS: (T <sub>A</sub> =25°C)           | SYMBOL                            |             | UNITS |
|---------------------------------------------------|-----------------------------------|-------------|-------|
| Continuous Reverse Voltage                        | V <sub>R</sub>                    | 90          | V     |
| Continuous Forward Current                        | I <sub>F</sub>                    | 250         | mA    |
| Peak Repetitive Forward Current                   | I <sub>FRM</sub>                  | 600         | mA    |
| Peak Repetitive Reverse Current                   | I <sub>RRM</sub>                  | 600         | mA    |
| Peak Forward Surge Current, t <sub>p</sub> =1.0μs | I <sub>FSM</sub>                  | 6.0         | A     |
| Peak Forward Surge Current, t <sub>p</sub> =1.0s  | I <sub>FSM</sub>                  | 1.0         | A     |
| Power Dissipation                                 | P <sub>D</sub>                    | 350         | mW    |
| Operating and Storage Junction Temperature        | T <sub>J</sub> , T <sub>stg</sub> | -65 to +150 | °C    |
| Thermal Resistance                                | θ <sub>JA</sub>                   | 357         | °C/W  |

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

| SYMBOL   | TEST CONDITIONS                              | MIN | MAX  | UNITS   |
|----------|----------------------------------------------|-----|------|---------|
| $I_R$    | $V_R=90V$                                    |     | 100  | nA      |
| $I_R$    | $V_R=90V, T_A=150^{\circ}C$                  |     | 100  | $\mu A$ |
| $BV_R$   | $I_R=100\mu A$                               | 90  |      | V       |
| $V_F$    | $I_F=10mA$                                   |     | 0.75 | V       |
| $V_F$    | $I_F=50mA$                                   |     | 0.84 | V       |
| $V_F$    | $I_F=100mA$                                  |     | 0.90 | V       |
| $V_F$    | $I_F=200mA$                                  |     | 1.00 | V       |
| $V_F$    | $I_F=400mA$                                  |     | 1.25 | V       |
| $C_T$    | $V_R=0, f=1.0MHz$                            |     | 35   | pF      |
| $t_{rr}$ | $I_R=I_F=30mA, Rec. to 3.0mA, R_L=100\Omega$ |     | 50   | ns      |

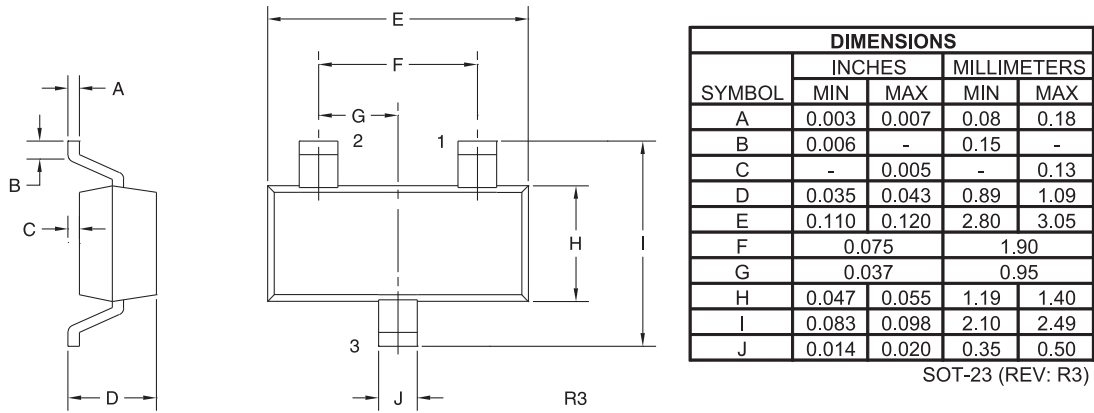
R6 (25-January 2010)

CMPD1001  
CMPD1001A  
CMPD1001S

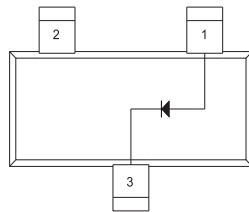
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### SOT-23 CASE - MECHANICAL OUTLINE



### PIN CONFIGURATIONS

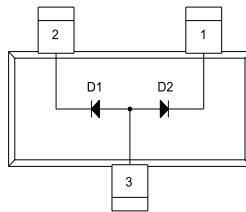


**CMPD1001**

**LEAD CODE:**

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

**MARKING CODE: L20**

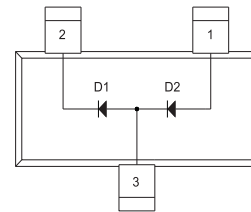


**CMPD1001A**

**LEAD CODE:**

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

**MARKING CODE: L22**



**CMPD1001S**

**LEAD CODE:**

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

**MARKING CODE: L21**

R6 (25-January 2010)



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Central's operations team provides the highest level of support to insure product is delivered on-time.

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- Custom product packing

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