

CMPD6001
 CMPD6001A
 CMPD6001C
 CMPD6001S

**SURFACE MOUNT
 LOW LEAKAGE
 SWITCHING DIODE**



SOT-23 CASE

Central™

Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPD6001 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:

| | | |
|-----------|----------------------|-------------------|
| CMPD6001 | SINGLE | MARKING CODE: ULO |
| CMPD6001A | DUAL, COMMON ANODE | MARKING CODE: ULA |
| CMPD6001C | DUAL, COMMON CATHODE | MARKING CODE: ULC |
| CMPD6001S | DUAL, IN SERIES | MARKING CODE: ULS |

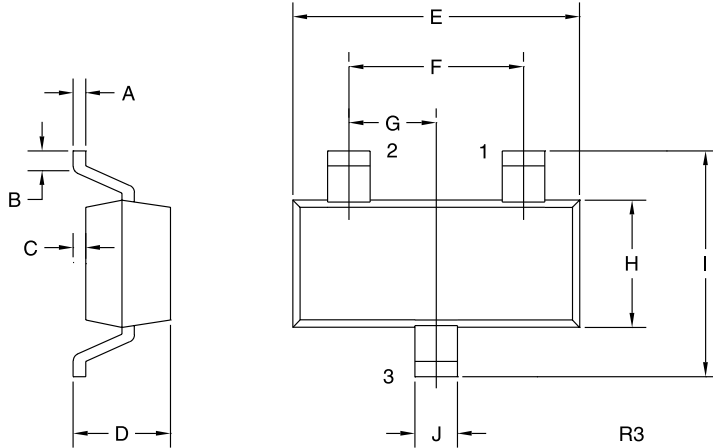
MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$)

| | SYMBOL | | UNITS |
|---|----------------|-------------|--------------------|
| Continuous Reverse Voltage | V_R | 75 | V |
| Peak Repetitive Reverse Voltage | V_{RRM} | 100 | V |
| Continuous Forward Current | I_F | 250 | mA |
| Peak Repetitive Forward Current | I_{FRM} | 250 | mA |
| Forward Surge Current, $t_p=1 \mu\text{sec.}$ | I_{FSM} | 4000 | mA |
| Forward Surge Current, $t_p=1 \text{ sec.}$ | I_{FSM} | 1000 | mA |
| Power Dissipation | P_D | 350 | mW |
| Operating and Storage | | | |
| Junction Temperature | T_J, T_{stg} | -65 to +150 | $^\circ\text{C}$ |
| Thermal Resistance | θ_{JA} | 357 | $^\circ\text{C/W}$ |

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

| SYMBOL | TEST CONDITIONS | MIN | MAX | UNITS |
|---------------|--|------------|------------|---------------|
| I_R | $V_R=75\text{V}$ | | 500 | pA |
| V_{BR} | $I_R=100\mu\text{A}$ | 100 | | V |
| V_F | $I_F=1.0\text{mA}$ | | 0.85 | V |
| V_F | $I_F=10\text{mA}$ | | 0.95 | V |
| V_F | $I_F=100\text{mA}$ | | 1.1 | V |
| C_T | $V_R=0, f=1.0 \text{ MHz}$ | | 2.0 | pF |
| t_{rr} | $I_R=I_F=10\text{mA}, R_L=100\Omega, \text{Rec. to } 1.0\text{mA}$ | | 3.0 | μs |

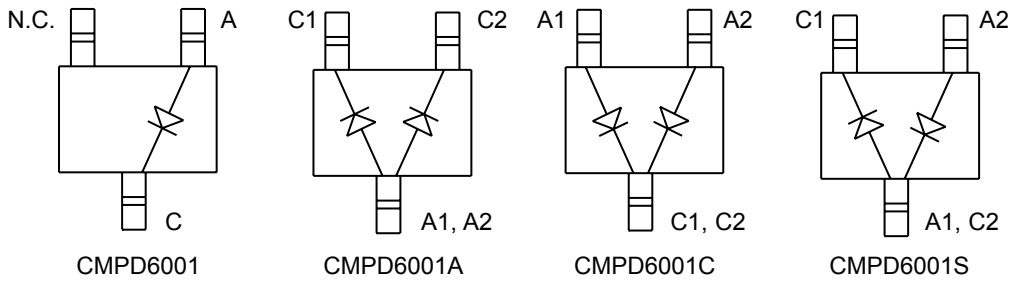
SOT-23 CASE - MECHANICAL OUTLINE



| 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 Configuration



R1 (01-Mar 2001)