

CMOD6001

**SURFACE MOUNT
ULTRAmi™
LOW LEAKAGE
SILICON SWITCHING DIODE**

ULTRAmi™



SOD-523 CASE

Central™
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMOD6001 type is a silicon switching diode manufactured by the epitaxial planar process, epoxy molded in a ULTRAmi™ surface mount package, designed for switching applications requiring a extremely low leakage diode.

MARKING CODE: 61

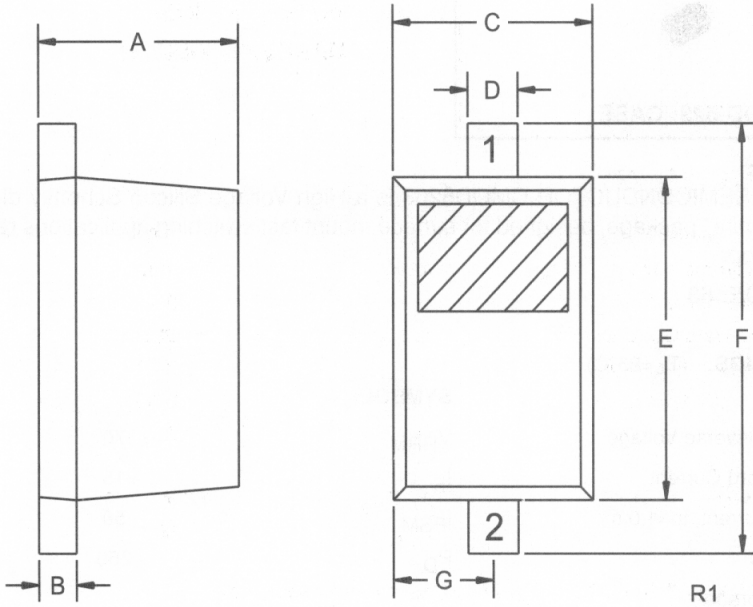
MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$)

| | 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, $t_p=1.0 \mu\text{sec.}$ | I_{FSM} | 4000 | mA |
| Forward Surge Current, $t_p=1.0 \text{ sec.}$ | I_{FSM} | 1000 | mA |
| Power Dissipation | P_D | 250 | mW |
| Operating and Storage | | | |
| Junction Temperature | T_J, T_{stg} | -65 to +150 | $^\circ\text{C}$ |
| Thermal Resistance | Θ_{JA} | 500 | $^\circ\text{C/W}$ |

ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ 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 |

SOD-523 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) CATHODE
- 2) ANODE

MARKING CODE: 61

| SYMBOL | DIMENSIONS | | | |
|--------|------------|-------|-------------|------|
| | INCHES | | MILLIMETERS | |
| | MIN | MAX | MIN | MAX |
| A | 0.020 | 0.031 | 0.50 | 0.80 |
| B | 0.004 | 0.008 | 0.10 | 0.20 |
| C | 0.028 | 0.035 | 0.70 | 0.90 |
| D | 0.008 | 0.011 | 0.20 | 0.28 |
| E | 0.039 | 0.055 | 1.00 | 1.40 |
| F | 0.055 | 0.071 | 1.40 | 1.80 |
| G | 0.016 | | 0.40 | |

SOD-523 (REV: R1)