

CMOD4448

**SURFACE MOUNT
HIGH SPEED
SILICON SWITCHING DIODE**

ULTRAmiTM



SOD-523 CASE

CentralTM
Semiconductor Corp.

www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMOD4448 type is a ultra-high speed silicon switching diode manufactured by the epitaxial planar process, epoxy molded in an ULTRAmiTM surface mount package, designed for high speed switching applications.

MARKING CODE: 48

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

Continuous Reverse Voltage
Peak Repetitive Reverse Voltage
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 75
 V_{RRM} 100
 I_F 250
 I_{FRM} 500
 I_{FSM} 4.0
 I_{FSM} 1.0
 P_D 250
 T_J, T_{stg} -65 to +150
 θ_{JA} 500

UNITS

V
V
mA
mA
A
A
mW
 $^{\circ}\text{C}$
 $^{\circ}\text{C/W}$

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

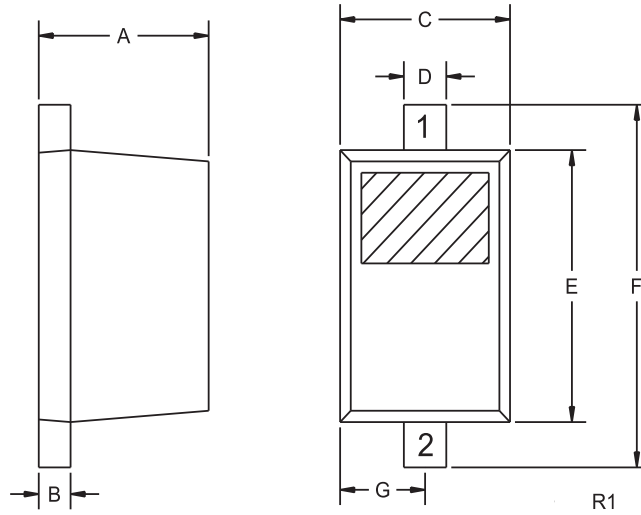
| SYMBOL | TEST CONDITIONS | MIN | MAX | UNITS |
|----------|--|------|------|-------|
| I_R | $V_R=20\text{V}$ | | 25 | nA |
| BV_R | $I_R=5.0\mu\text{A}$ | 75 | | V |
| BV_R | $I_R=100\mu\text{A}$ | 100 | | V |
| V_F | $I_F=5.0\text{mA}$ | 0.62 | 0.72 | V |
| V_F | $I_F=100\text{mA}$ | | 1.0 | V |
| C_T | $V_R=0, f=1.0\text{MHz}$ | | 4.0 | pF |
| t_{rr} | $I_R=I_F=10\text{mA}, R_L=100\Omega, \text{Rec. to } 1.0\text{mA}$ | | 4.0 | ns |

R4 (25-January 2010)

CMOD4448
SURFACE MOUNT
HIGH SPEED
SILICON SWITCHING DIODE



SOD-523 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Cathode
- 2) Anode

MARKING CODE: 48

| DIMENSIONS | | | | |
|-------------------|--------|-------|-------------|------|
| SYMBOL | 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)

R4 (25-January 2010)

www.centalsemi.com

www.DataSheet4U.com