

CMSD4448

SUPER-MINI
HIGH SPEED
SWITCHING DIODE

SUPER™
mini



SOT-323 CASE

Central™
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMSD4448 type is a ultra-high speed silicon switching diode manufactured by the epitaxial planar process, in an epoxy molded super-mini surface mount package, designed for high speed switching applications.

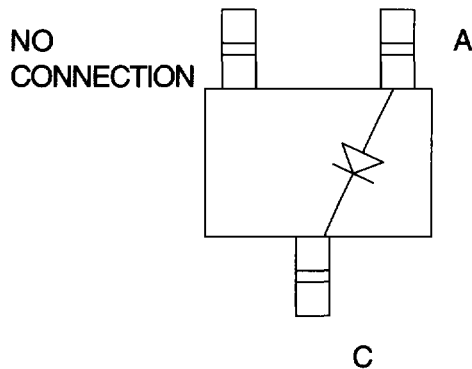
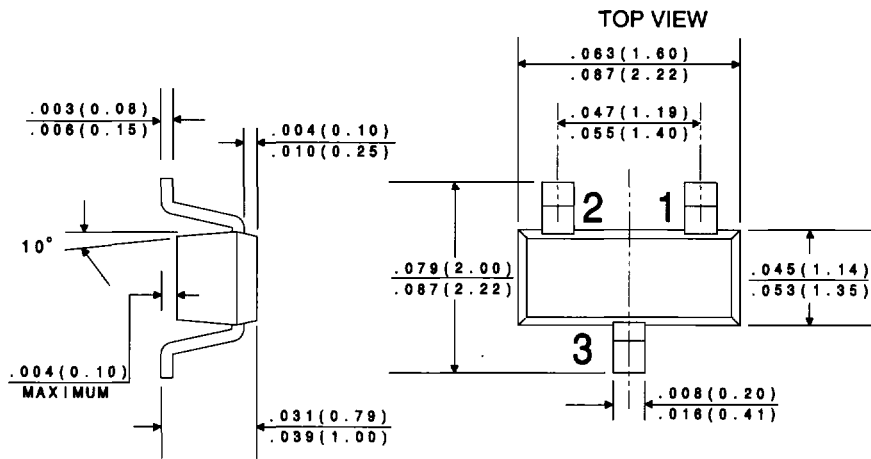
MAXIMUM RATINGS: ($T_A=25^{\circ}\text{C}$)

| | 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 | 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 |
|---------------|--|------------|------------|--------------|
| V_{BR} | $I_R=5.0\mu\text{A}$ | 75 | | V |
| V_{BR} | $I_R=100\mu\text{A}$ | 100 | | V |
| I_R | $V_R=20\text{V}$ | | 25 | nA |
| 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 | $V_R=0, f=1\text{ MHz}$ | | 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 |

All dimensions in inches (mm).



DATA SHEET

R1