**CMLD4448**

**SURFACE MOUNT**
**PICOmini™**
**DUAL, ISOLATED**
**HIGH SPEED SILICON**
**SWITCHING DIODES**

PICOmini™

**SOT-563 CASE**

**Central™**
**Semiconductor Corp.**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMLD4448 type contains two (2) Isolated Silicon Switching Diodes, manufactured by the epitaxial planar process, epoxy molded in a PICOmini™ surface mount package. These devices are designed for high speed switching applications.

**MARKING CODE: C48**

| **MAXIMUM RATINGS:** ($T_A$=25°C) | **SYMBOL** | | **UNITS** |
|---|---|---|---|
| Peak Repetitive Reverse Voltage | $V_{RRM}$ | 120 | V |
| Continuous Forward Current | $I_F$ | 250 | mA |
| Peak Repetitive Forward Current | $I_{FRM}$ | 500 | mA |
| Forward Surge Current, tp=1ms | $I_{FSM}$ | 4.0 | A |
| Forward Surge Current, tp=1s | $I_{FSM}$ | 1.0 | A |
| Power Dissipation | $P_D$ | 250 | mW |
| Operating and Storage Junction Temperature | $T_J$, $T_{stg}$ | -65 to +150 | °C |
| Thermal Resistance | $\Theta_{JA}$ | 500 | °C/W |

**ELECTRICAL CHARACTERISTICS PER DIODE:** ($T_A$=25°C unless otherwise noted)

| **SYMBOL** | **TEST CONDITIONS** | **MIN** | **TYP** | **MAX** | **UNITS** |
|---|---|---|---|---|---|
| $BV_R$ | $I_R$=100μA | 120 | 150 | | V |
| $I_R$ | $V_R$=50V | | | 300 | nA |
| $I_R$ | $V_R$=50V, $T_A$=125°C | | | 100 | μA |
| $I_R$ | $V_R$=100V | | | 500 | nA |
| $V_F$ | $I_F$=1.0mA | 0.55 | 0.59 | 0.65 | V |
| $V_F$ | $I_F$=10mA | 0.67 | 0.72 | 0.77 | V |
| $V_F$ | $I_F$=100mA | 0.85 | 0.91 | 1.0 | V |
| $C_T$ | $V_R$=0, f=1 MHz | | | 1.5 | pF |
| $t_{rr}$ | $I_R$=$I_F$=10mA, $R_L$=100Ω, Rec. to 1.0mA | | 2.0 | 4.0 | ns |

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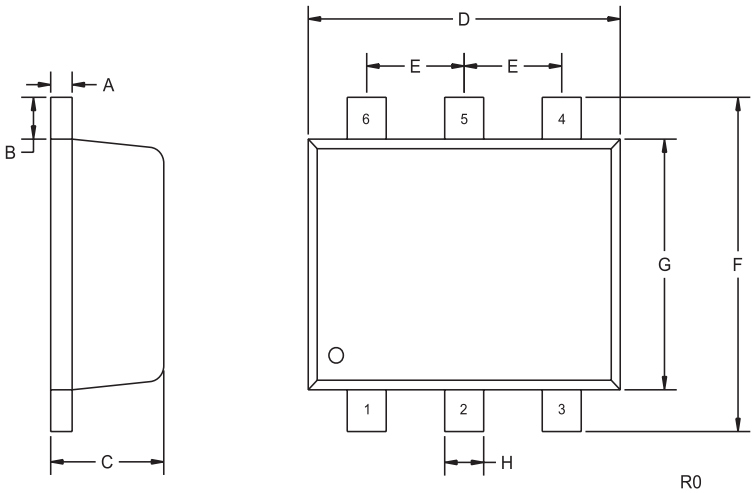
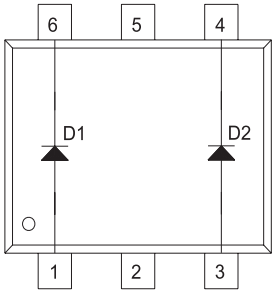
## SOT-563 CASE - MECHANICAL OUTLINE




| DIMENSIONS | | | | |
|---|---|---|---|---|
| | INCHES | | MILLIMETERS | |
| SYMBOL | MIN | MAX | MIN | MAX |
| A | 0.004 | 0.007 | 0.10 | 0.18 |
| B | 0.008 | | 0.20 | |
| C | 0.022 | 0.024 | 0.56 | 0.60 |
| D | 0.059 | 0.067 | 1.50 | 1.70 |
| E | 0.020 | | 0.50 | |
| F | 0.061 | 0.067 | 1.55 | 1.70 |
| G | 0.047 | | 1.20 | |
| H | 0.006 | 0.012 | 0.15 | 0.30 |

SOT-563 (REV: R0)

## PIN CONFIGURATION




**LEAD CODE:**
1) ANODE D1
2) NC
3) ANODE D2
4) CATHODE D2
5) NC
6) CATHODE D1

**MARKING CODE: C48**

R2 (6-June 2008)