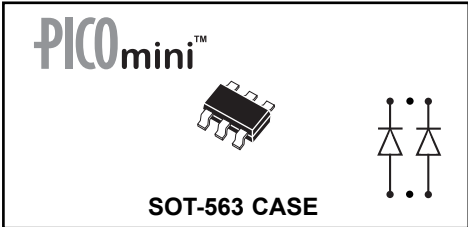


**CMLD4448**  
**SURFACE MOUNT**  
**PICOMini™**  
**DUAL, ISOLATED**  
**HIGH SPEED SILICON**  
**SWITCHING DIODES**



# 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<sub>A</sub>=25°C)

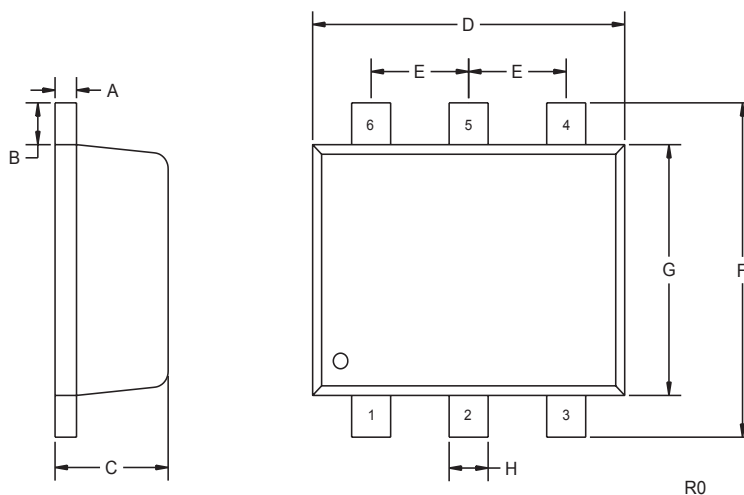
Peak Repetitive Reverse Voltage  
 Continuous Forward Current  
 Peak Repetitive Forward Current  
 Forward Surge Current, tp=1 ms  
 Forward Surge Current, tp=1 s  
 Power Dissipation  
 Operating and Storage  
 Junction Temperature  
 Thermal Resistance

SYMBOL		UNITS
V <sub>RRM</sub>	120	V
I <sub>F</sub>	250	mA
I <sub>FRM</sub>	500	mA
I <sub>FSM</sub>	4.0	A
I <sub>FSM</sub>	1.0	A
P <sub>D</sub>	300	mW
T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
θ <sub>JA</sub>	417	°C/W

**ELECTRICAL CHARACTERISTICS PER DIODE:** (T<sub>A</sub>=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
BV <sub>R</sub>	I <sub>R</sub> =100μA	120	150		V
I <sub>R</sub>	V <sub>R</sub> =50V			300	nA
I <sub>R</sub>	V <sub>R</sub> =50V, T <sub>A</sub> =125°C			100	μA
I <sub>R</sub>	V <sub>R</sub> =100V			500	nA
V <sub>F</sub>	I <sub>F</sub> =1.0mA	0.55	0.59	0.65	V
V <sub>F</sub>	I <sub>F</sub> =10mA	0.67	0.72	0.77	V
V <sub>F</sub>	I <sub>F</sub> =100mA	0.85	0.91	1.0	V
C <sub>T</sub>	V <sub>R</sub> =0, f=1 MHz			1.5	pF
t <sub>rr</sub>	I <sub>R</sub> =I <sub>F</sub> =10mA, R <sub>L</sub> =100Ω, Rec. to 1.0mA		2.0	4.0	ns

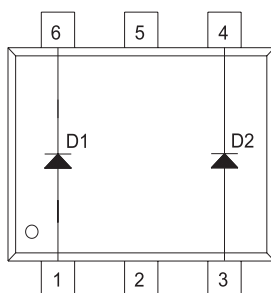
**SOT-563 CASE - MECHANICAL OUTLINE**



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	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**

R1 (2-December 2003)