

CMLD4448

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



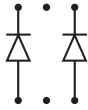
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DESCRIPTION:

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

PICOmini™



SOT-563 CASE

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

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_{RRM}	120
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
mA
mA
A
A
mW
$^\circ\text{C}$
$^\circ\text{C/W}$

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

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

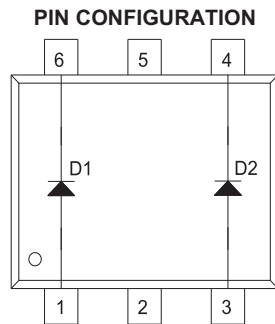
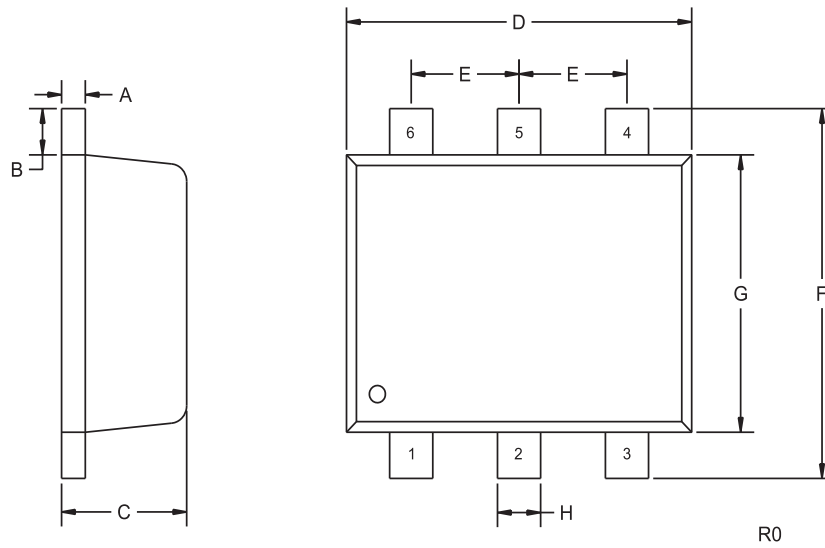
R3 (18-January 2010)

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SOT-563 CASE - MECHANICAL OUTLINE



SYMBOL	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)

LEAD CODE:

- 1) Anode D1
- 2) NC
- 3) Anode D2
- 4) Cathode D2
- 5) NC
- 6) Cathode D1

MARKING CODE: C48

R3 (18-January 2010)