

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

Peak Repetitive Reverse Voltage
Continuous Forward Current
Peak Repetitive Forward Current
Forward Surge Current, $t_p=1\text{ ms}$
Forward Surge Current, $t_p=1\text{ s}$
Power Dissipation
Operating and Storage
Junction Temperature
Thermal Resistance

SYMBOL

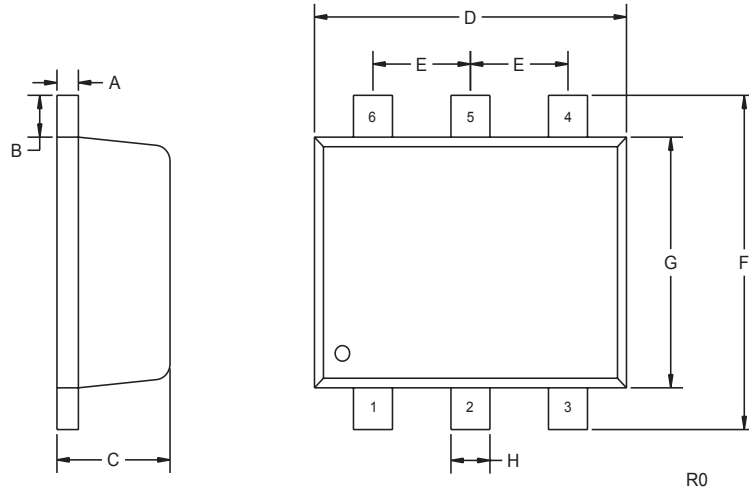
SYMBOL		UNITS
V_{RRM}	120	V
I_F	250	mA
I_{FRM}	500	mA
I_{FSM}	4.0	A
I_{FSM}	1.0	A
P_D	300	mW
T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
θ_{JA}	417	$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
BV_R	$I_R=100\mu\text{A}$	120	150		V
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
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	$V_R=0, f=1\text{ MHz}$			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

R1 (2-December 2003)

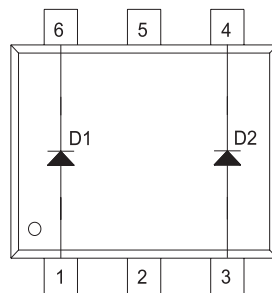
SOT-563 CASE - MECHANICAL OUTLINE



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

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