

CMLD6001

**SURFACE MOUNT SILICON  
DUAL, ISOLATED  
ULTRA LOW LEAKAGE  
SWITCHING DIODE**



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMLD6001 type contains two (2) isolated silicon switching diodes, manufactured by the epitaxial planar process, epoxy molded in an SOT-563 surface mount package. These devices are designed for switching applications requiring extremely low leakage.

**MARKING CODE: C6D or 6D**



**SOT-563 CASE**

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

Continuous Reverse Voltage
Peak Repetitive Reverse Voltage
Continuous 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**

$V_R$	75
$V_{RRM}$	100
$I_F$	250
$I_{FSM}$	4.0
$I_{FSM}$	1.0
$P_D$	250
$T_J, T_{stg}$	-65 to +150
$\Theta_{JA}$	500

**UNITS**

V
V
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	MAX	UNITS
$I_R$	$V_R=75\text{V}$		500	pA
$BV_R$	$I_R=100\mu\text{A}$	100		V
$V_F$	$I_F=1.0\text{mA}$		0.85	V
$V_F$	$I_F=10\text{mA}$		0.95	V
$V_F$	$I_F=100\text{mA}$		1.1	V
$C_J$	$V_R=0, f=1.0\text{MHz}$		2.0	pF
$t_{rr}$	$I_R=I_F=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$		3.0	$\mu\text{s}$

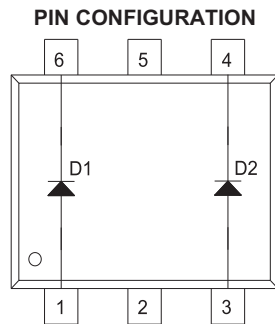
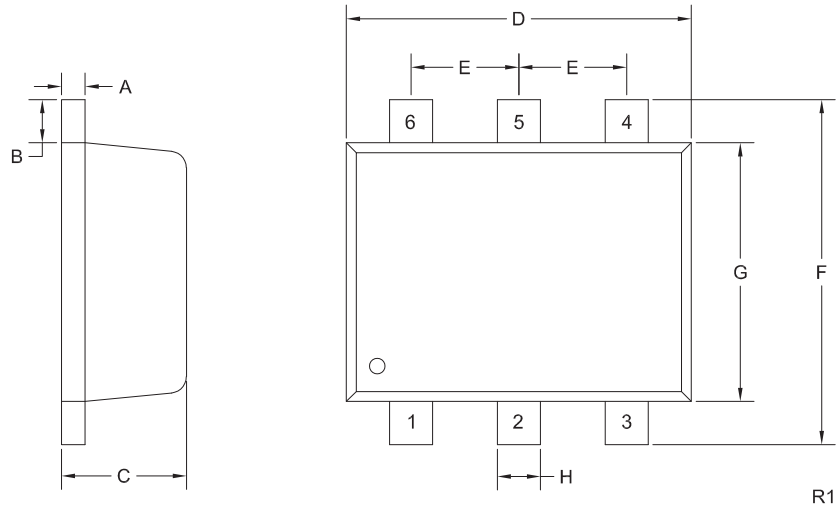
R5 (15-September 2014)

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**SOT-563 CASE - MECHANICAL OUTLINE**



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.0027	0.007	0.07	0.18
B	0.008		0.20	
C	0.017	0.024	0.45	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	0.045	0.049	1.15	1.25
H	0.006	0.012	0.15	0.30

SOT-563 (REV: R1)

**LEAD CODE:**

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

**MARKING CODE: C6D or 6D**

R5 (15-September 2014)