

CMLD6001
SURFACE MOUNT
PICOmini™
DUAL, ISOLATED
LOW LEAKAGE SILICON
SWITCHING DIODES



Central™

Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMLD6001 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 switching applications requiring extremely low leakage.

MARKING CODE: C6D

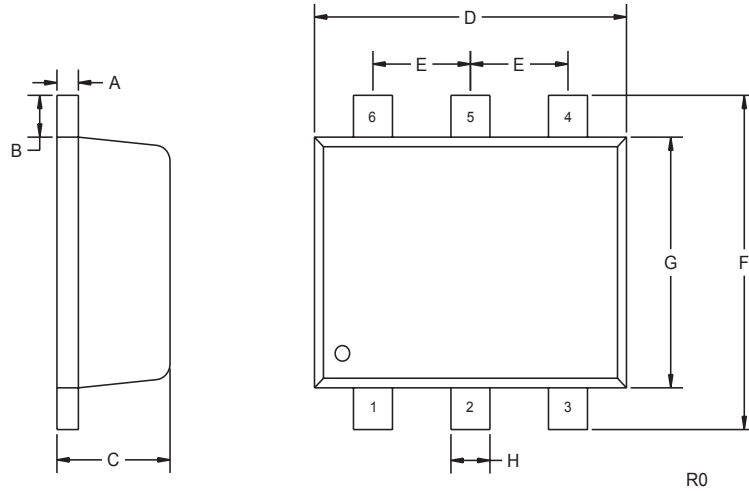
MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$)

	SYMBOL		UNITS
Continuous Reverse Voltage	V_R	75	V
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
Continuous Forward Current	I_F	250	mA
Forward Surge Current, $t_p=1 \mu\text{sec.}$	I_{FSM}	4000	mA
Forward Surge Current, $t_p=1 \text{sec.}$	I_{FSM}	1000	mA
Power Dissipation	P_D	250	mW
Operating and Storage			
Junction Temperature	T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
Thermal Resistance	θ_{JA}	500	$^\circ\text{C/W}$

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_T	$V_R=0, f=1 \text{MHz}$		2.0	pF
t_{rr}	$I_R=I_F=10\text{mA}, R_L=100\Omega \text{ Rec. to } 1.0\text{mA}$		3.0	μs

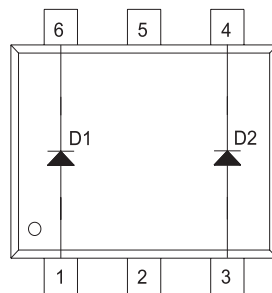
SOT-563 CASE - MECHANICAL OUTLINE



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

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R0 (3-November 2003)