

CMLD2004
CMLD2004A
CMLD2004C
CMLD2004S
CMLD2004DO

SURFACE MOUNT
DUAL, HIGH VOLTAGE
SILICON SWITCHING DIODES

PICOmini™



SOT-563 CASE

Central™
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMLD2004 SERIES contains two (2) High Voltage Silicon Switching Diodes, manufactured by the epitaxial planar process, epoxy molded in a PICOmini™ surface mount package, designed for applications requiring high voltage capability.

The following configurations are available:

CMLD2004	DUAL, ISOLATED
CMLD2004A	DUAL, COMMON ANODE
CMLD2004C	DUAL, COMMON CATHODE
CMLD2004S	DUAL, IN SERIES
CMLD2004DO	DUAL, ISOLATED OPPOSING

MARKING CODE: 04D
MARKING CODE: 04A
MARKING CODE: 04C
MARKING CODE: 04S
MARKING CODE: 04O

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

	SYMBOL		UNITS
Continuous Reverse Voltage	V_R	240	V
Peak Repetitive Reverse Voltage	V_{RRM}	300	V
Peak Repetitive Reverse Current	I_O	200	mA
Continuous Forward Current	I_F	225	mA
Peak Repetitive Forward Current	I_{FRM}	625	mA
Forward Surge Current, $t_p=1\ \mu\text{s}$	I_{FSM}	4.0	A
Forward Surge Current, $t_p=1\text{s}$	I_{FSM}	1.0	A
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	$V_R=240\text{V}$		100	nA
I_R	$V_R=240\text{V}, T_A=150^\circ\text{C}$		100	μA
BV_R	$I_R=100\ \mu\text{A}$	300		V
V_F	$I_F=100\text{mA}$		1.0	V
C_T	$V_R=0, f=1.0\text{ MHz}$		5.0	pF
t_{rr}	$I_F=I_R=30\text{mA}$, Rec. to 3.0mA, $R_L=100\ \Omega$		50	ns

R3 (04-June 2003)

**SURFACE MOUNT
DUAL, HIGH VOLTAGE
SILICON SWITCHING DIODES**

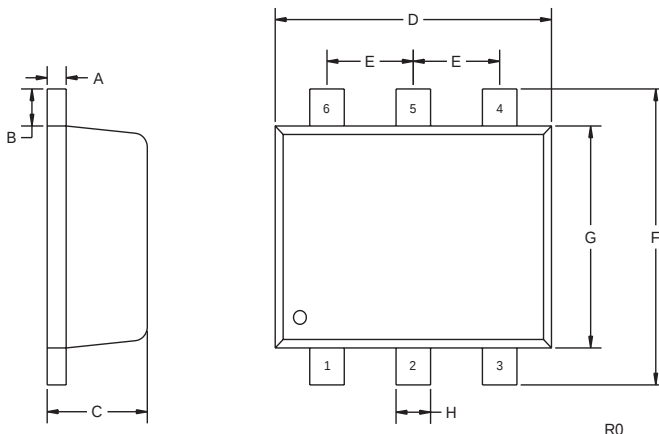
SOT-563 CASE - MECHANICAL OUTLINE

SYMBOL	DIMENSIONS			
	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)

MARKING CODE:

CMLD2004: 04D
CMLD2004A: 04A
CMLD2004C: 04C
CMLD2004S: 04S
CMLD2004DO: 04O



Pin Configuration

CMLD2004	CMLD2004A	CMLD2004C	CMLD2004S	CMLD2004DO
LEAD CODE:	LEAD CODE:	LEAD CODE:	LEAD CODE:	LEAD CODE:
1) Anode D1 2) NC 3) Anode D2 4) Cathode D2 5) NC 6) Cathode D1	1) NC 2) Anode D1, D2 3) NC 4) Cathode D2 5) NC 6) Cathode D1	1) Cathode D1, D2 2) Cathode D1, D2 3) Anode D2 4) Anode D1 5) Cathode D1, D2 6) Cathode D1, D2	1) NC 2) NC 3) Anode D1, Cathode D2 4) Anode D2 5) NC 6) Cathode D1	1) Anode D1 2) NC 3) Cathode D2 4) Anode D2 5) NC 6) Cathode D1