

CMLD2004 CMLD2004A
CMLD2004C CMLD2004S
CMLD2004DO

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



SOT-563 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMLD2004 series contains two (2) silicon high voltage switching diodes, manufactured by the epitaxial planar process, epoxy molded in an SOT-563 surface mount package, designed for applications requiring high voltage capability.

The following configurations are available:

CMLD2004	DUAL, ISOLATED	MARKING CODE: 04D
CMLD2004A	DUAL, COMMON ANODE	MARKING CODE: 04A
CMLD2004C	DUAL, COMMON CATHODE	MARKING CODE: 04C
CMLD2004S	DUAL, IN SERIES	MARKING CODE: 04S
CMLD2004DO	DUAL, ISOLATED OPPOSING	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
Peak Forward Surge Current, $t_p=1.0\mu\text{s}$	I_{FSM}	4.0	A
Peak Forward Surge Current, $t_p=1.0\text{s}$	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_J	$V_R=0, f=1.0\text{MHz}$		5.0	pF
t_{rr}	$I_F=I_R=30\text{mA}, I_{rr}=3.0\text{mA}, R_L=100\Omega$		50	ns

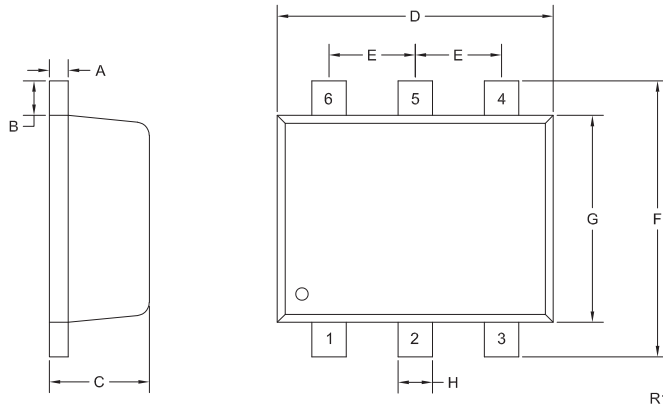
R5 (3-February 2014)

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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

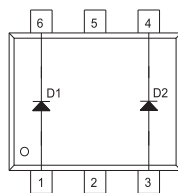
SOT-563 (REV: R1)

MARKING CODES:

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

PIN CONFIGURATIONS

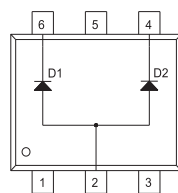
CMLD2004



LEAD CODE:

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

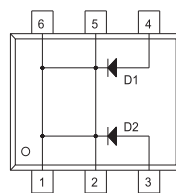
CMLD2004A



LEAD CODE:

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

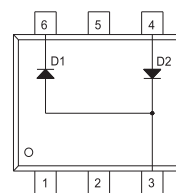
CMLD2004C



LEAD CODE:

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

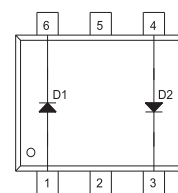
CMLD2004S



LEAD CODE:

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

CMLD2004DO



LEAD CODE:

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

R5 (3-February 2014)