

CMLD2004 CMLD2004A  
 CMLD2004C CMLD2004S  
 CMLD2004DO

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



**SOT-563 CASE**



[www.centrasemi.com](http://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	<b>MARKING CODE: 04D</b>
CMLD2004A	DUAL, COMMON ANODE	<b>MARKING CODE: 04A or 4A</b>
CMLD2004C	DUAL, COMMON CATHODE	<b>MARKING CODE: 04C</b>
CMLD2004S	DUAL, IN SERIES	<b>MARKING CODE: 04S</b>
CMLD2004DO	DUAL, ISOLATED OPPOSING	<b>MARKING CODE: 04O</b>

<b>MAXIMUM RATINGS:</b> (T <sub>A</sub> =25°C)	<b>SYMBOL</b>		<b>UNITS</b>
Continuous Reverse Voltage	V <sub>R</sub>	240	V
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	300	V
Peak Repetitive Reverse Current	I <sub>O</sub>	200	mA
Continuous Forward Current	I <sub>F</sub>	225	mA
Peak Repetitive Forward Current	I <sub>FRM</sub>	625	mA
Peak Forward Surge Current, tp=1.0µs	I <sub>FSM</sub>	4.0	A
Peak Forward Surge Current, tp=1.0s	I <sub>FSM</sub>	1.0	A
Power Dissipation	P <sub>D</sub>	250	mW
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	θ <sub>JA</sub>	500	°C/W

**ELECTRICAL CHARACTERISTICS PER DIODE:** (T<sub>A</sub>=25°C unless otherwise noted)

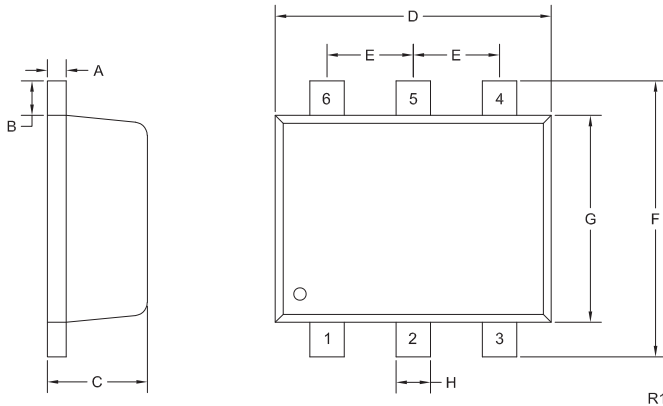
<b>SYMBOL</b>	<b>TEST CONDITIONS</b>	<b>MIN</b>	<b>MAX</b>	<b>UNITS</b>
I <sub>R</sub>	V <sub>R</sub> =240V		100	nA
I <sub>R</sub>	V <sub>R</sub> =240V, T <sub>A</sub> =150°C		100	µA
BV <sub>R</sub>	I <sub>R</sub> =100µA	300		V
V <sub>F</sub>	I <sub>F</sub> =100mA		1.0	V
C <sub>J</sub>	V <sub>R</sub> =0, f=1.0MHz		5.0	pF
t <sub>rr</sub>	I <sub>F</sub> =I <sub>R</sub> =30mA, I <sub>rr</sub> =3.0mA, R <sub>L</sub> =100Ω		50	ns

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**SOT-563 CASE - MECHANICAL OUTLINE**



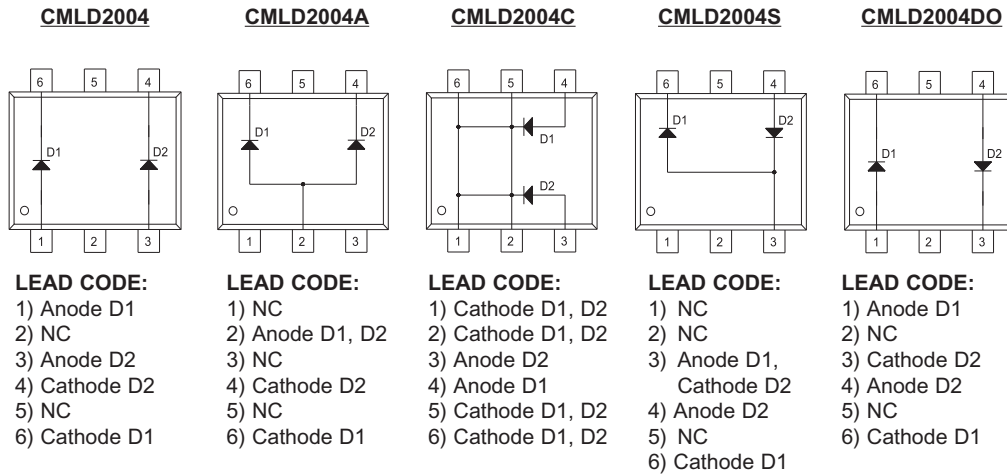
SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.0027	0.007	0.07	0.18
B	0.008		0.20	
C	0.017	0.024	0.45	0.60
D	0.059	0.067	1.50	1.70
E	0.020		0.50	
F	0.061	0.067	1.55	1.70
G	0.045	0.049	1.15	1.25
H	0.006	0.012	0.15	0.30

SOT-563 (REV: R1)

**MARKING CODES:**

**CMLD2004: 04D**  
**CMLD2004A: 04A or 4A**  
**CMLD2004C: 04C**  
**CMLD2004S: 04S**  
**CMLD2004DO: 04O**

**PIN CONFIGURATIONS**



R6 (12-September 2014)