

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 or 4A
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°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, tp=1.0μs	I _{FSM}	4.0	A
Peak Forward Surge Current, tp=1.0s	I _{FSM}	1.0	A
Power Dissipation	P _D	250	mW
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 to +150	°C
Thermal Resistance	Θ _{JA}	500	°C/W

ELECTRICAL CHARACTERISTICS PER DIODE: (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I _R	V _R =240V		100	nA
I _R	V _R =240V, T _A =150°C		100	μA
BV _R	I _R =100μA	300		V
V _F	I _F =100mA		1.0	V
C _J	V _R =0, f=1.0MHz		5.0	pF
t _{rr}	I _F =I _R =30mA, I _{rr} =3.0mA, R _L =100Ω		50	ns

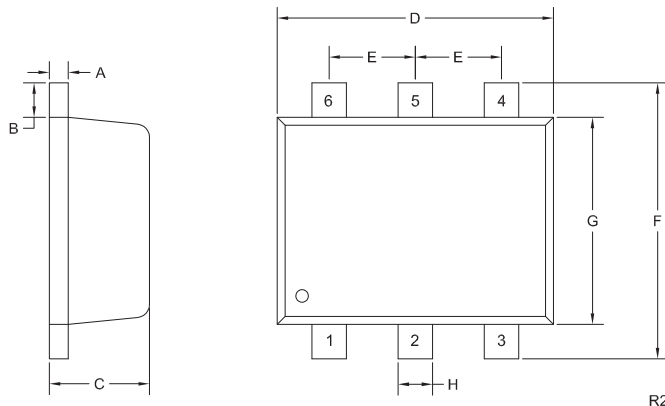
R7 (15-June 2015)

CMLD2004 CMLD2004A
CMLD2004C CMLD2004S
CMLD2004DO

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



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	0.059	0.067	1.50	1.70
G	0.043	0.051	1.10	1.30
H	0.006	0.012	0.15	0.30

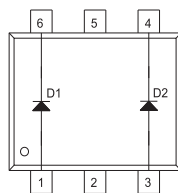
SOT-563 (REV: R2)

MARKING CODES:

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

PIN CONFIGURATIONS

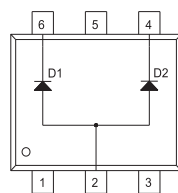
CMLD2004



LEAD CODE:

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

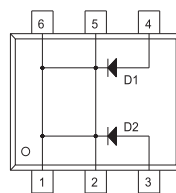
CMLD2004A



LEAD CODE:

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

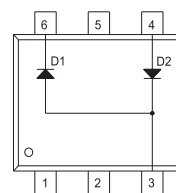
CMLD2004C



LEAD CODE:

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

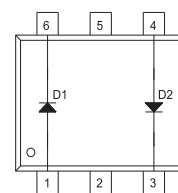
CMLD2004S



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

R7 (15-June 2015)

CMLD2004 CMLD2004A
CMLD2004C CMLD2004S
CMLD2004DO

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



SERVICES

- Bonded Inventory
- Custom Electrical Screening
- Custom Electrical Characteristic Curves
- SPICE Models
- Custom Packaging
- Package Base Options
- Custom Device Development/ Multi Discrete Modules (MDM™)
- Bare Die Available for Hybrid Applications

LIMITATIONS AND DAMAGES DISCLAIMER: In no event shall Central be liable for any collateral, indirect, punitive, incidental, consequential, or exemplary damages in connection with or arising out of a purchase order or contract or the use of products provided hereunder, regardless of whether Central has been advised of the possibility of such damages. Excluded damages shall include, but not be restricted to: cost of removal or reinstallation, rework, ancillary costs to the procurement of substitute products, loss of profits, loss of savings, loss of use, loss of data, or business interruption. No claim, suit, or action shall be brought against Central more than two (2) years after the related cause of action has occurred.

In no event shall Central's aggregate liability from any warranty, indemnity, or other obligation arising out of or in connection with a purchase order or contract, or any use of any Central product provided hereunder, exceed the total amount paid to Central for the specific products sold under a purchase order or contract with respect to which losses or damages are claimed. The existence of more than one (1) claim against the specific products sold to Buyer under a purchase order or contract shall not enlarge or extend this limit.

Buyer understands and agrees that the foregoing liability limitations are essential elements of a purchase order or contract and that in the absence of such limitations, the material and economic terms of the purchase order or contract would be substantially different.

R7 (15-June 2015)