

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°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, tp=1 μs	I _{FSM}	4.0	A
Forward Surge Current, tp=1 s	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 _T	V _R =0, f=1.0 MHz		5.0	pF
t _{rr}	I _F =I _R =30mA, Rec. to 3.0mA, R _L =100Ω		50	ns

R3 (04-June 2003)

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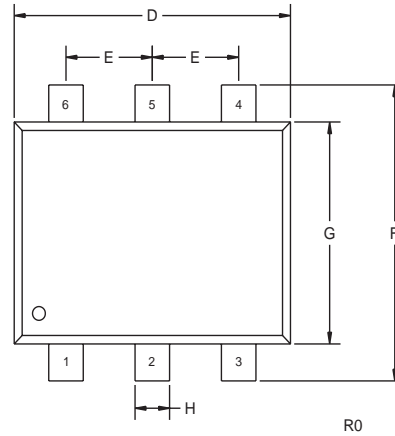
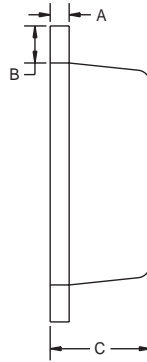
SOT-563 CASE - MECHANICAL OUTLINE

SYMBOL	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)

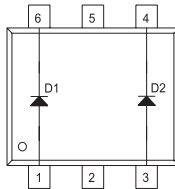
MARKING CODE:

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



Pin Configuration

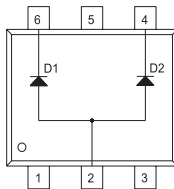
CMLD2004



LEAD CODE:

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

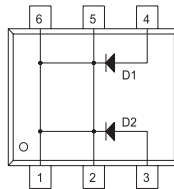
CMLD2004A



LEAD CODE:

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

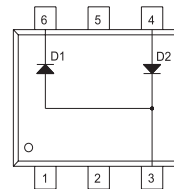
CMLD2004C



LEAD CODE:

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

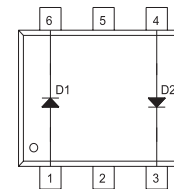
CMLD2004S



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