

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

Continuous Reverse Voltage
Peak Repetitive Reverse Voltage
Peak Repetitive Reverse Current
Continuous Forward Current
Peak Repetitive Forward Current
Forward Surge Current, $t_p=1\ \mu\text{s}$
Forward Surge Current, $t_p=1\text{s}$
Power Dissipation
Operating and Storage
Junction Temperature
Thermal Resistance

SYMBOL		UNITS
V_R	240	V
V_{RRM}	300	V
I_O	200	mA
I_F	225	mA
I_{FRM}	625	mA
I_{FSM}	4.0	A
I_{FSM}	1.0	A
P_D	250	mW
T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
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}	$I_F=I_R=30\text{mA}, \text{Rec. to } 3.0\text{mA}, R_L=100\Omega$		50	ns

R3 (04-June 2003)

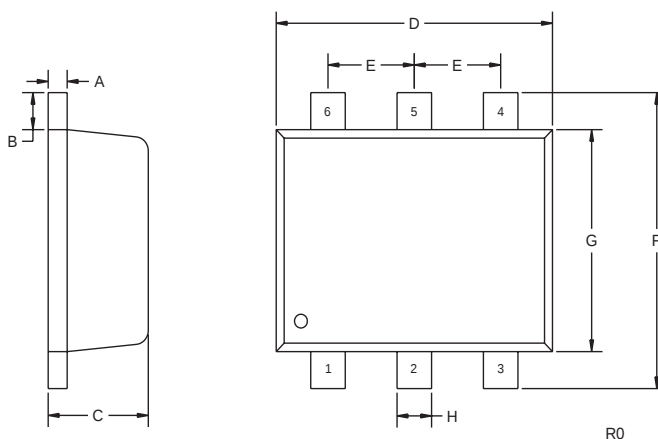
SOT-563 CASE - MECHANICAL OUTLINE

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: 1) Anode D1 2) NC 3) Anode D2 4) Cathode D2 5) NC 6) Cathode D1	LEAD CODE: 1) NC 2) Anode D1, D2 3) NC 4) Cathode D2 5) NC 6) Cathode D1	LEAD CODE: 1) Cathode D1, D2 2) Cathode D1, D2 3) Anode D2 4) Anode D1 5) Cathode D1, D2 6) Cathode D1, D2	LEAD CODE: 1) NC 2) NC 3) Anode D1, Cathode D2 4) Anode D2 5) NC 6) Cathode D1	LEAD CODE: 1) Anode D1 2) NC 3) Cathode D2 4) Anode D2 5) NC 6) Cathode D1