

CMLD3003DO
CMLD3003DOG

SURFACE MOUNT
DUAL, ISOLATED, OPPOSING
LOW LEAKAGE SILICON
SWITCHING DIODES

PICOmini™



SOT-563 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMLD3003DO and CMLD3003DOG types contain Two (2) Isolated Opposing Configuration, Silicon Switching Diodes, manufactured by the epitaxial planar process, epoxy molded in a PICOmini™ surface mount package. These devices are designed for switching applications requiring extremely low leakage.

MARKING CODES:

CMLD3003DO: C30

CMLD3003DOG: 3CG

• The CMLD3003DOG is **Halogen Free** by design

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

Continuous Reverse Voltage
Average Rectified Current
Continuous Forward Current
Peak Repetitive Forward Current
Peak Forward Surge Current, $t_p=1.0\mu\text{s}$
Peak Forward Surge Current, $t_p=1.0\text{s}$
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL

V_R 180
 I_O 200
 I_F 600
 I_{FRM} 700
 I_{FSM} 2.0
 I_{FSM} 1.0
 P_D 250
 T_J, T_{stg} -65 to +150
 Θ_{JA} 500

UNITS

V
mA
mA
mA
A
A
mW
 $^\circ\text{C}$
 $^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS PER DIODE: ($T_A=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_R	$V_R=125\text{V}$		1.0	nA
I_R	$V_R=125\text{V}, T_A=150^\circ\text{C}$		3.0	μA
I_R	$V_R=180\text{V}$		10	nA
I_R	$V_R=180\text{V}, T_A=150^\circ\text{C}$		5.0	μA
BV_R	$I_R=5.0\mu\text{A}$	200		V
V_F	$I_F=1.0\text{mA}$	0.62	0.72	V
V_F	$I_F=10\text{mA}$	0.72	0.83	V
V_F	$I_F=50\text{mA}$	0.80	0.89	V
V_F	$I_F=100\text{mA}$	0.83	0.93	V
V_F	$I_F=200\text{mA}$	0.87	1.10	V
V_F	$I_F=300\text{mA}$	0.90	1.15	V
C_T	$V_R=0, f=1.0\text{MHz}$		4.0	pF

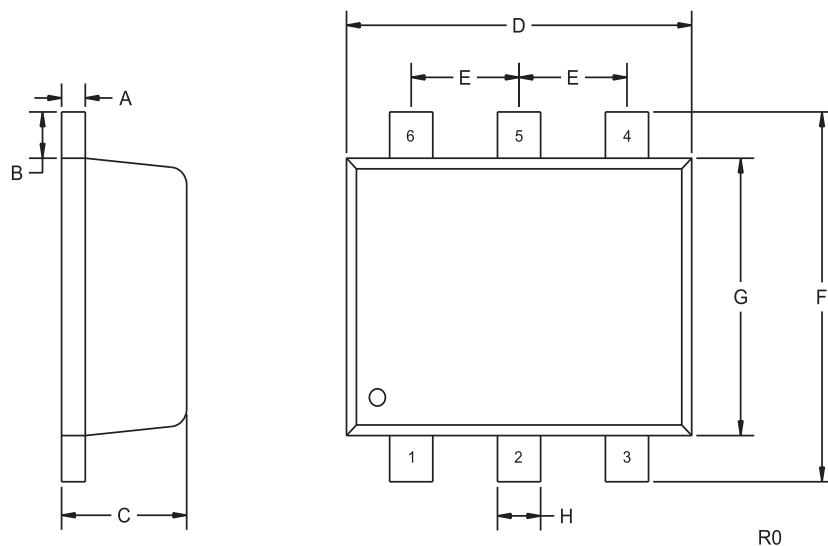
R2 (18-January 2010)

CMLD3003DO
CMLD3003DOG

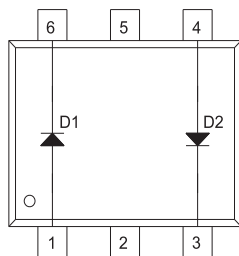
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SOT-563 CASE - MECHANICAL OUTLINE



PIN CONFIGURATION



LEAD CODE:

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

SYMBOL	DIMENSIONS			
	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 CODES:

CMLD3003DO: C30
CMLD3003DOG: 3CG

R2 (18-January 2010)