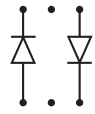


CMLD3003DO  
CMLD3003DOG

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



SOT-563 CASE



www.centrasemi.com

#### DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMLD3003DO and CMLD3003DOG devices contain two (2) isolated opposing configuration, silicon switching diodes, manufactured by the epitaxial planar process, epoxy molded in an SOT-563 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  
 $\Theta_{JA}$  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	$\mu\text{A}$
$I_R$	$V_R=180\text{V}$		10	nA
$I_R$	$V_R=180\text{V}, T_A=150^{\circ}\text{C}$		5.0	$\mu\text{A}$
$BV_R$	$I_R=5.0\mu\text{A}$	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
$C_J$	$V_R=0, f=1.0\text{MHz}$		4.0	pF

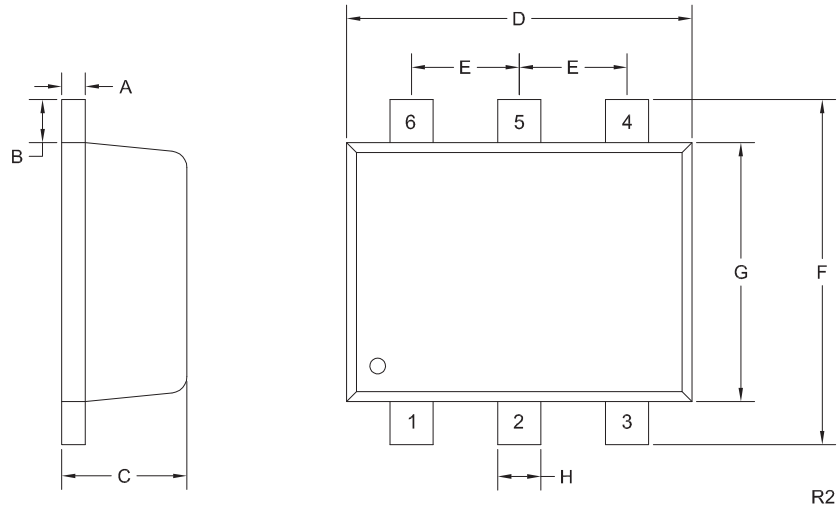
R4 (15-June 2015)

CMLD3003DO  
CMLD3003DOG

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

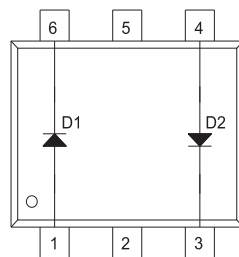


# SOT-563 CASE - MECHANICAL OUTLINE



R2

## PIN CONFIGURATION



## LEAD CODE:

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

## DIMENSIONS

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:

CMLD3003DO: C30  
CMLD3003DOG: 3CG

R4 (15-June 2015)

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### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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