

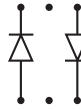
CMLD3003DO
CMLD3003DOG

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



www.centrasemi.com

PICOmini™



SOT-563 CASE

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°C)

Continuous Reverse Voltage
Average Rectified Current
Continuous Forward Current
Peak Repetitive Forward Current
Peak Forward Surge Current, tp=1.0µs
Peak Forward Surge Current, tp=1.0s
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
°C
°C/W

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

| SYMBOL | TEST CONDITIONS | MIN | MAX | UNITS |
|-----------------|---|------|------|-------|
| I _R | V _R =125V | | 1.0 | nA |
| I _R | V _R =125V, T _A =150°C | | 3.0 | µA |
| I _R | V _R =180V | | 10 | nA |
| I _R | V _R =180V, T _A =150°C | | 5.0 | µA |
| BV _R | I _R =5.0µA | 200 | | V |
| V _F | I _F =1.0mA | 0.62 | 0.72 | V |
| V _F | I _F =10mA | 0.72 | 0.83 | V |
| V _F | I _F =50mA | 0.80 | 0.89 | V |
| V _F | I _F =100mA | 0.83 | 0.93 | V |
| V _F | I _F =200mA | 0.87 | 1.10 | V |
| V _F | I _F =300mA | 0.90 | 1.15 | V |
| C _T | V _R =0, f=1.0MHz | | 4.0 | pF |

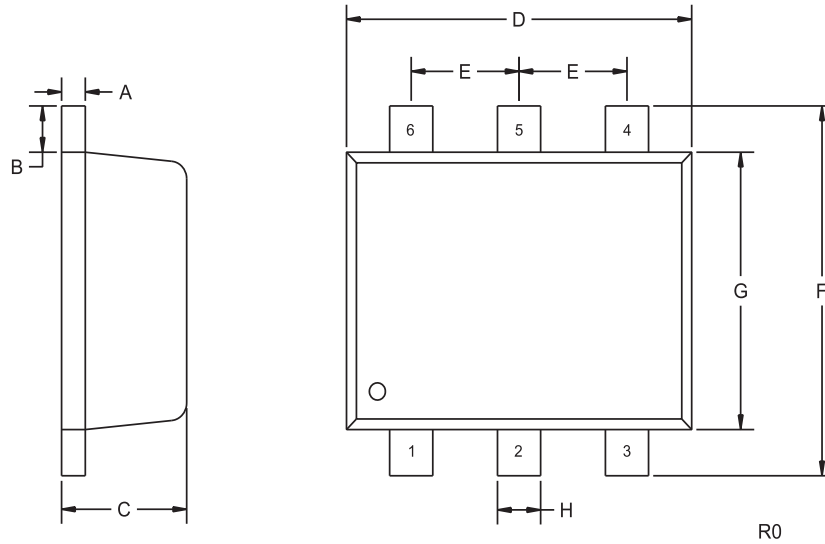
R2 (18-January 2010)

CMLD3003DO
CMLD3003DOG

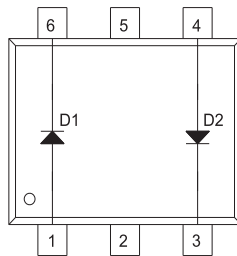
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SOT-563 CASE - MECHANICAL OUTLINE



PIN CONFIGURATION



LEAD CODE:

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

| SYMBOL | 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)