

# Central™

## Semiconductor Corp.

### DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMLD3003DO type contains 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 CODE: C30**

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

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

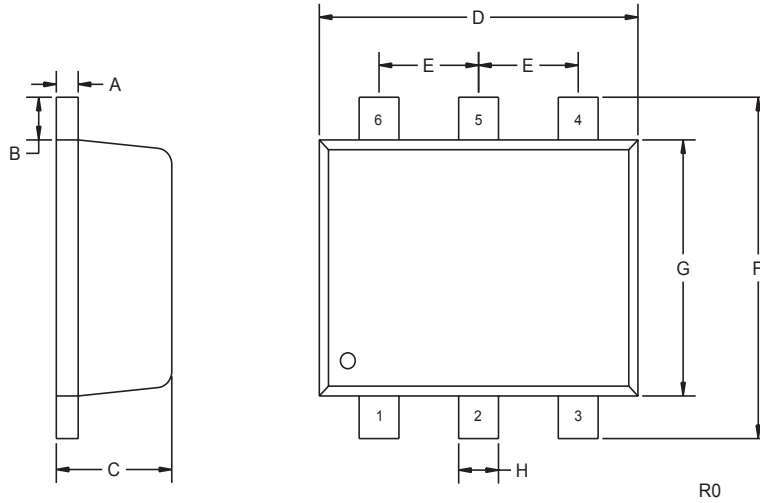
SYMBOL		UNITS
$V_R$	180	V
$I_O$	200	mA
$I_F$	600	mA
$I_{FRM}$	700	mA
$I_{FSM}$	2.0	A
$I_{FSM}$	1.0	A
$P_D$	250	mW
$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
$\Theta_{JA}$	500	$^\circ\text{C}/\text{W}$

### 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
$C_T$	$V_R=0, f=1 \text{MHz}$		4.0	pF

R0 (07-June 2004)

**SOT-563 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

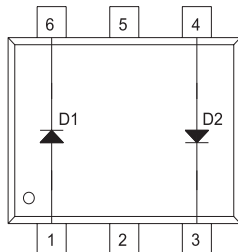
- 1) ANODE D1
- 2) NC
- 3) CATHODE D2
- 4) ANODE D2
- 5) NC
- 6) CATHODE D1

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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)

**Dual Opposing Configuration**



R0 (07-June 2004)