

CMLSH05-4

SURFACE MOUNT PICOmini™  
LOW  $V_F$   
SILICON SCHOTTKY DIODE

PICOmini™



SOT-563 CASE

# Central™

Semiconductor Corp.

## DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMLSH05-4 is a 40 volt Schottky Diode packaged in a space saving SOT-563 surface mount case. This PICOmini™ device has been designed for applications requiring a low forward voltage drop.

MARKING CODE: C54

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

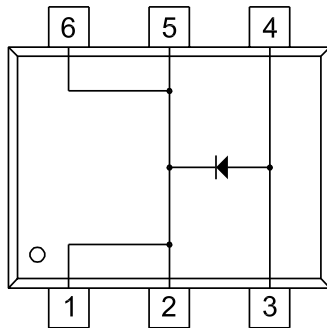
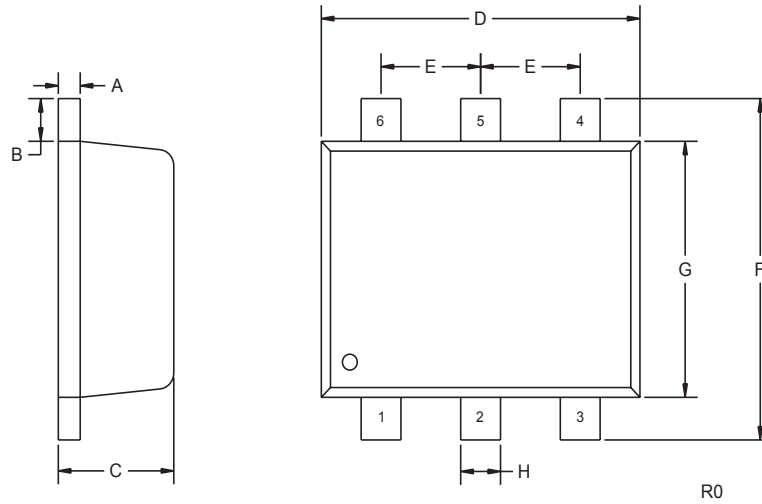
	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$	40	V
Continuous Forward Current	$I_F$	500	mA
Peak Repetitive Forward Current, $t_p \leq 1\text{ms}$	$I_{FRM}$	3.5	A
Forward Surge Current, $t_p=8\text{ms}$	$I_{FSM}$	10	A
Power Dissipation	$P_D$	250	mW
Operating and Storage			
Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
Thermal Resistance	$\theta_{JA}$	500	$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_R$	$V_R=10\text{V}$		20	$\mu\text{A}$
$I_R$	$V_R=30\text{V}$		100	$\mu\text{A}$
$BV_R$	$I_R=500\mu\text{A}$	40		V
$V_F$	$I_F=100\mu\text{A}$		0.13	V
$V_F$	$I_F=1.0\text{mA}$		0.21	V
$V_F$	$I_F=10\text{mA}$		0.27	V
$V_F$	$I_F=100\text{mA}$		0.35	V
$V_F$	$I_F=500\text{mA}$		0.47	V
$C_T$	$V_R=1.0\text{V}, f=1.0\text{MHz}$		50	pF

R1 (27-January 2004)

**SOT-563 CASE - MECHANICAL OUTLINE**



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)

**LEAD CODE:**

- 1) CATHODE
- 2) CATHODE
- 3) ANODE
- 4) ANODE
- 5) CATHODE
- 6) CATHODE

**MARKING CODE: C54**

R1 (27-January 2004)