

CMLSH05-4
SURFACE MOUNT
LOW V_F
SILICON SCHOTTKY DIODE



www.centrasemi.com

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.

PICOmini™



SOT-563 CASE

MARKING CODE: C54

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

Peak Repetitive Reverse Voltage
 Continuous Forward Current
 Peak Repetitive Forward Current, $t_p \leq 1.0\text{ms}$
 Peak Forward Surge Current, $t_p = 8.0\text{ms}$
 Power Dissipation
 Operating and Storage Junction Temperature
 Thermal Resistance

SYMBOL

V_{RRM} 40
 I_F 500
 I_{FRM} 3.5
 I_{FSM} 10
 P_D 250
 T_J, T_{stg} -65 to +150
 Θ_{JA} 500

UNITS

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

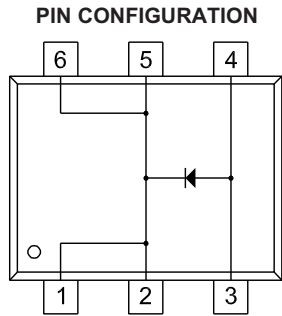
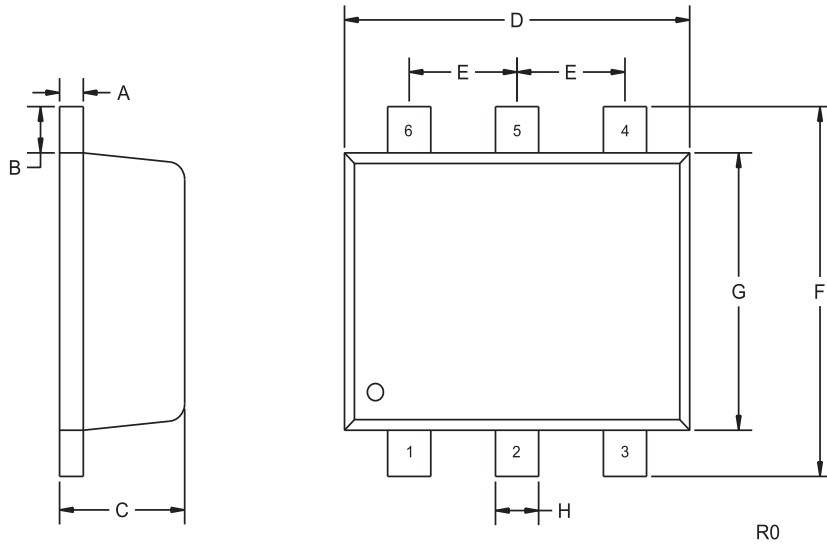
ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_R	$V_R=10\text{V}$		20	μA
I_R	$V_R=30\text{V}$		100	μA
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

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SOT-563 CASE - MECHANICAL OUTLINE



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)

LEAD CODE:

- 1) Cathode
- 2) Cathode
- 3) Anode
- 4) Anode
- 5) Cathode
- 6) Cathode

MARKING CODE: C54

R2 (20-January 2010)