

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

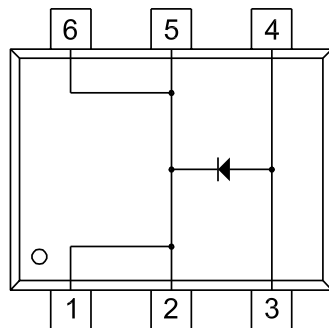
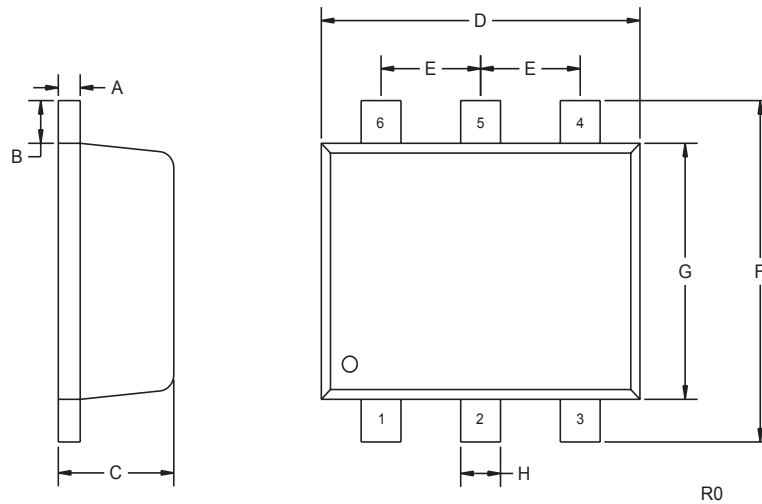
	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	40	V
Continuous Forward Current	I_F	500	mA
Peak Repetitive Forward Current, $t_p \leq 1\text{ms}$	I_{FRM}	3.5	A
Forward Surge Current, $t_p=8\text{ms}$	I_{FSM}	10	A
Power Dissipation	P_D	250	mW
Operating and Storage			
Junction Temperature	T_J, T_{stg}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

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)