

**CMLSH05-4**  
**SURFACE MOUNT PICOmini™**  
**LOW V<sub>F</sub>**  
**SILICON SCHOTTKY DIODE**



# 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**

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**MAXIMUM RATINGS:** (T<sub>A</sub>=25°C)

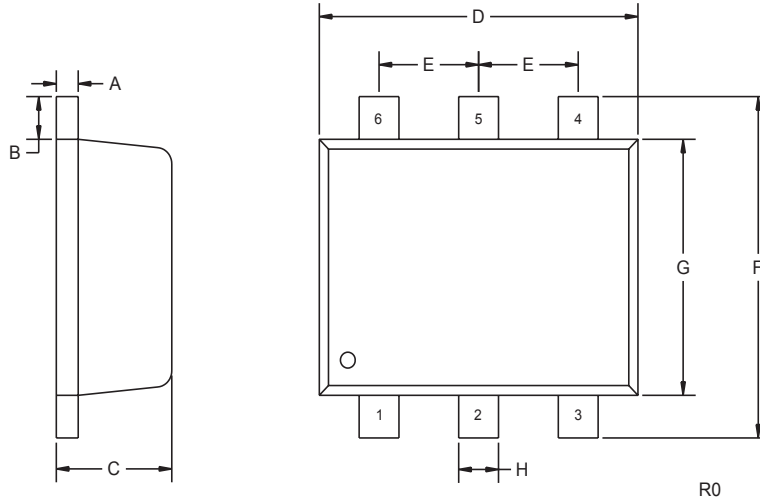
	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	40	V
Continuous Forward Current	I <sub>F</sub>	500	mA
Peak Repetitive Forward Current, tp ≤ 1ms	I <sub>FRM</sub>	3.5	A
Forward Surge Current, tp=8ms	I <sub>FSM</sub>	10	A
Power Dissipation	P <sub>D</sub>	250	mW
Operating and Storage			
Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	θ <sub>JA</sub>	500	°C/W

**ELECTRICAL CHARACTERISTICS:** (T<sub>A</sub>=25°C unless otherwise noted)

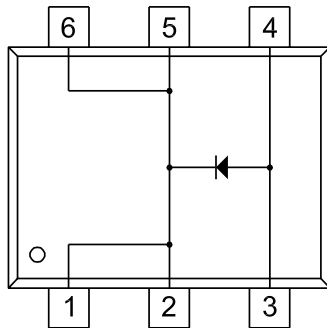
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I <sub>R</sub>	V <sub>R</sub> = 10V		20	μA
I <sub>R</sub>	V <sub>R</sub> = 30V		100	μA
BV <sub>R</sub>	I <sub>R</sub> = 500μA	40		V
V <sub>F</sub>	I <sub>F</sub> = 100μA		0.13	V
V <sub>F</sub>	I <sub>F</sub> = 1.0mA		0.21	V
V <sub>F</sub>	I <sub>F</sub> = 10mA		0.27	V
V <sub>F</sub>	I <sub>F</sub> = 100mA		0.35	V
V <sub>F</sub>	I <sub>F</sub> = 500mA		0.47	V
C <sub>T</sub>	V <sub>R</sub> = 1.0V, f=1.0 MHz		50	pF

R1 (27-January 2004)

**SOT-563 CASE - MECHANICAL OUTLINE**



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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)

**LEAD CODE:**

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

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R1 (27-January 2004)