



### CMLSH1-40

**SURFACE MOUNT PICOmini™  
HIGH CURRENT, LOW V<sub>F</sub>  
SILICON SCHOTTKY DIODE**

**PICOmini™**



**SOT-563 CASE**

# Central™ Semiconductor Corp.

### DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMLSH1-40 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 high current and a low forward voltage drop.

**MARKING CODE: C41**

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

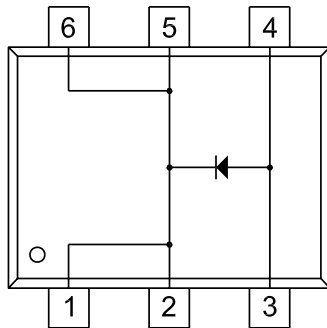
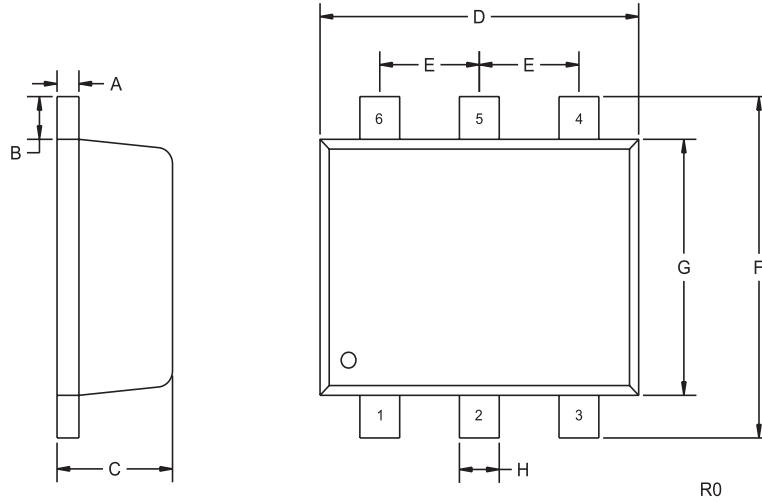
	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	40	V
Continuous Forward Current	I <sub>F</sub>	1.0	A
Peak Repetitive Forward Current, tp ≤ 1ms	I <sub>FRM</sub>	3.5	A
Forward Surge Current, tp=8ms	I <sub>FSM</sub>	10	A
Power Dissipation	P <sub>D</sub>	250	mW
Operating and Storage			
Junction 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	TYP	MAX	UNITS
I <sub>R</sub>	V <sub>R</sub> = 5V			10	μA
I <sub>R</sub>	V <sub>R</sub> = 8V			20	μA
I <sub>R</sub>	V <sub>R</sub> = 15V			50	μA
BV <sub>R</sub>	I <sub>R</sub> = 100μA	40			V
V <sub>F</sub>	I <sub>F</sub> = 10mA			0.29	V
V <sub>F</sub>	I <sub>F</sub> = 100mA			0.36	V
V <sub>F</sub>	I <sub>F</sub> = 500mA			0.45	V
V <sub>F</sub>	I <sub>F</sub> = 1.0A			0.55	V
C <sub>J</sub>	V <sub>R</sub> = 4.0V, f= 1.0MHz		50		pF
t <sub>rr</sub>	I <sub>F</sub> =I <sub>R</sub> = 500mA, I <sub>rr</sub> = 50mA, R <sub>L</sub> = 50Ω		15		ns

R1 (15-June 2006)

**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: C41**

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