

CMLSH1-40
CMLSH1-40G*

**SURFACE MOUNT
HIGH CURRENT, LOW V_F
SILICON SCHOTTKY RECTIFIER**

PICOmini™



SOT-563 CASE

* Device is *Halogen Free* by design

Central™
Semiconductor Corp.

www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMLSH1-40 is a 40 volt Schottky Rectifier 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 CODES: CMLSH1-40: C41
CMLSH1-40G*: CG4**

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

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

SYMBOL		UNITS
V_{RRM}	40	V
I_F	1.0	A
I_{FRM}	3.5	A
I_{FSM}	10	A
P_D	250	mW
T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
θ_{JA}	500	$^\circ\text{C/W}$

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

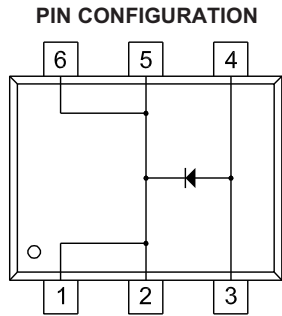
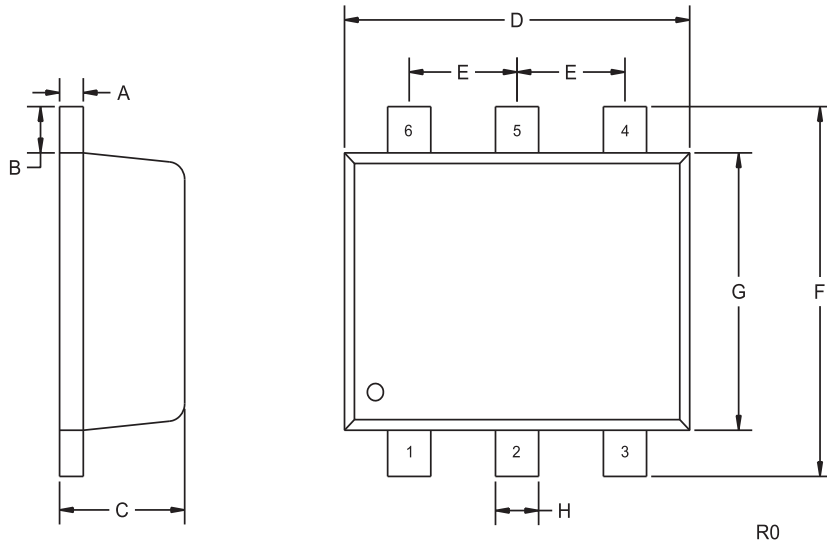
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=5.0\text{V}$			10	μA
I_R	$V_R=8.0\text{V}$			20	μA
I_R	$V_R=15\text{V}$			50	μA
BV_R	$I_R=100\mu\text{A}$	40			V
V_F	$I_F=10\text{mA}$			0.29	V
V_F	$I_F=100\text{mA}$			0.36	V
V_F	$I_F=500\text{mA}$			0.45	V
V_F	$I_F=1.0\text{A}$			0.55	V
C_J	$V_R=4.0\text{V}, f=1.0\text{MHz}$		50		pF
t_{rr}	$I_F=I_R=500\text{mA}, I_{rr}=50\text{mA}, R_L=50\Omega$		15		ns

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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

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R3 (20-January 2010)