

CMLSH1-40  
CMLSH1-40G\*

**SURFACE MOUNT SILICON  
HIGH CURRENT, LOW  $V_F$   
SCHOTTKY RECTIFIERS**



**SOT-563 CASE**

\* Device is *Halogen Free* by design



[www.centrasemi.com](http://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 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	$^\circ\text{C}$
$\theta_{JA}$	500	$^\circ\text{C/W}$

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

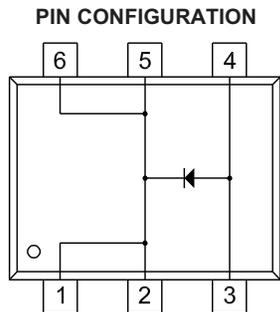
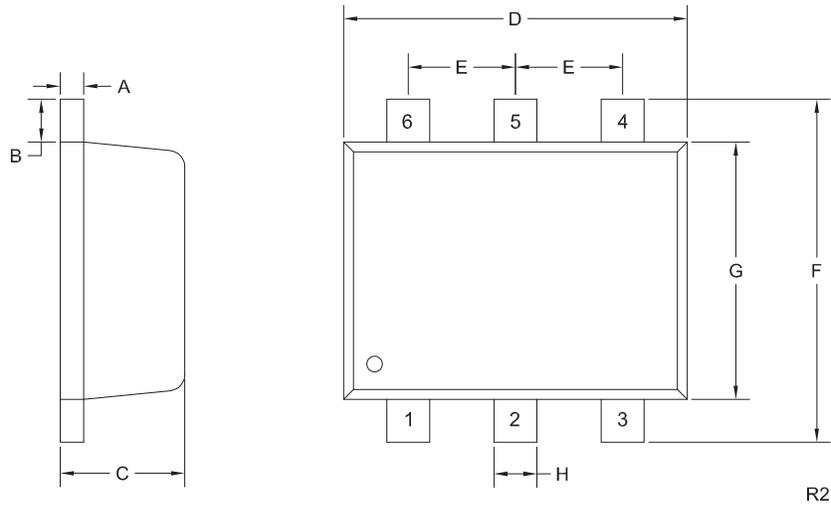
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_R$	$V_R=5.0\text{V}$			10	$\mu\text{A}$
$I_R$	$V_R=8.0\text{V}$			20	$\mu\text{A}$
$I_R$	$V_R=15\text{V}$			50	$\mu\text{A}$
$BV_R$	$I_R=100\mu\text{A}$	40			V
$V_F$	$I_F=10\text{mA}$			0.29	V
$V_F$	$I_F=100\text{mA}$			0.36	V
$V_F$	$I_F=500\text{mA}$			0.45	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	0.0027	0.007	0.07	0.18
B	0.008		0.20	
C	0.017	0.024	0.45	0.60
D	0.059	0.067	1.50	1.70
E	0.020		0.50	
F	0.059	0.067	1.50	1.70
G	0.043	0.051	1.10	1.30
H	0.006	0.012	0.15	0.30

SOT-563 (REV: R2)

**LEAD CODE:**

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

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R4 (1-July 2015)

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#### **SERVICES**

- Bonded Inventory
- Custom Electrical Screening
- Custom Electrical Characteristic Curves
- SPICE Models
- Custom Packaging
- Package Base Options
- Custom Device Development/ Multi Discrete Modules (MDM™)
- Bare Die Available for Hybrid Applications

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R4 (1-July 2015)