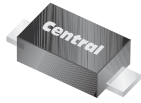


CMMSH1-40L

**SURFACE MOUNT LOW  $V_F$   
SILICON SCHOTTKY RECTIFIER  
1 AMP, 40 VOLTS**



**SOD-123F CASE**



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMMSH1-40L is a 1.0A, Low  $V_F$ , Silicon Schottky Rectifier. This high efficiency, Low  $V_F$  Schottky features high current capacity packaged in a small, thermally efficient, SOD-123F surface mount package. When compared to similar devices in the larger SMA package, this device is 58% smaller, with a 67% lower profile, making it ideally suited for applications where performance and size are critical.

**MARKING CODE: CS40FL**

**APPLICATIONS:**

- DC / DC Converters
- Voltage Clamping
- Protection Circuits
- Battery powered applications including Cell Phones, Digital Cameras, Pagers, PDA's, Laptop Computers, etc.

**FEATURES:**

- High Current (1.0A Max), 40V Device
- Low  $V_F$  (0.45V Max)
- High Surge Current 50A
- Thermally efficient SOD-123F Flat Lead package design

**MAXIMUM RATINGS:** ( $T_J=25^\circ\text{C}$  unless otherwise noted)

	<b>SYMBOL</b>		<b>UNITS</b>
Peak Repetitive Reverse Voltage	$V_{RRM}$	40	V
DC Blocking Voltage	$V_R$	40	V
Average Forward Current	$I_O$	1.0	A
Peak Forward Surge Current	$I_{FSM}$	50	A
Power Dissipation (Note 1)	$P_D$	550	mW
Operating Junction Temperature	$T_J$	-55 to + 125	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to + 150	$^\circ\text{C}$
Thermal Resistance	$\Theta_{JA}$	181	$^\circ\text{C/W}$

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

<b>SYMBOL</b>	<b>TEST CONDITIONS</b>	<b>MIN</b>	<b>TYP</b>	<b>MAX</b>	<b>UNITS</b>
$I_R$	$V_R=20\text{V}$		3.0	150	$\mu\text{A}$
$I_R$	$V_R=40\text{V}$		10	500	$\mu\text{A}$
$I_R$	$V_R=40\text{V}, T_J=85^\circ\text{C}$			25	mA
$BV_R$	$I_R=0.5\text{mA}$	40			V
$V_F$	$I_F=1.0\text{A}$		0.4	0.45	V
$C_T$	$V_R=10\text{V}, f=1.0\text{MHz}$		70		pF

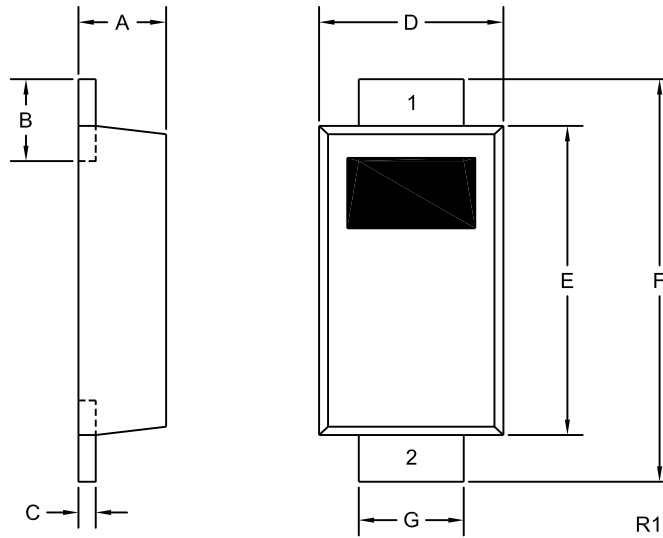
Notes: (1) FR-5 board (1.0 x 0.75 x 0.062in) with copper mounting pad area of 2.9mm<sup>2</sup>

R1 (25-January 2010)

**CMMSH1-40L**  
**SURFACE MOUNT LOW  $V_F$**   
**SILICON SCHOTTKY RECTIFIER**  
**1 AMP, 40 VOLTS**



**SOD-123F CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

- 1) Cathode
- 2) Anode

**MARKING CODE: CS40FL**

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.035	0.043	0.88	1.08
B	0.020	0.031	0.50	0.80
C	0.004	0.008	0.10	0.20
D	0.065	0.077	1.65	1.95
E	0.104	0.116	2.65	2.95
F	0.140	0.156	3.55	3.95
G	0.030	0.041	0.75	1.05

SOD-123F (REV:R1)

R1 (25-January 2010)