

CMMSH1-20 CMMSH1-20G*
 CMMSH1-40 CMMSH1-40G*
 CMMSH1-60 CMMSH1-60G*
 CMMSH1-100 CMMSH1-100G*

**SURFACE MOUNT SILICON
 SCHOTTKY RECTIFIER
 1 AMP, 20 THRU 100 VOLTS**



SOD-123F CASE

* Device is *Halogen Free* by design

FEATURES:

- Small size (58% smaller than the SMA package)
- 67% lower profile than SMA
- Greatly improved power dissipation per board area as compared to the SMA



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DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMMSH1 Series are high current Schottky rectifiers in the SOD-123F surface mount package. These devices are suitable for design applications such as AC/DC, DC/DC converters, and reverse battery protection circuits in a variety of portable and battery powered products.

MARKING CODES:

DEVICE	CODE	Halogen Free Devices: DEVICE	CODE
CMMSH1-20	CS20F	CMMSH1-20G	CS20G
CMMSH1-40	CS40F	CMMSH1-40G	CS40G
CMMSH1-60	CS60F	CMMSH1-60G	CS60G
CMMSH1-100	CS100F	CMMSH1-100G	CS100G

- High Current, Low Forward Voltage
- Thermally efficient Flat Lead package design

MAXIMUM RATINGS: (T_A=25°C unless otherwise noted)

	SYMBOL	CMMSH1				UNITS
		-20 -20G	-40 -40G	-60 -60G	-100 -100G	
Peak Repetitive Reverse Voltage	V _{RRM}	20	40	60	100	V
DC Blocking Voltage	V _R	20	40	60	100	V
RMS Reverse Voltage	V _{R(RMS)}	14	28	42	70	V
Average Forward Current (T _L =75°C)	I _O			1.0		A
Peak Forward Surge Current (8.3ms)	I _{FSM}			30		A
Power Dissipation (Note 1)	P _D			1.14		W
Operating Junction Temperature	T _J		-65 to +125			°C
Storage Temperature	T _{stg}		-65 to +150			°C
Thermal Resistance	θ _{JA}			88		°C/W

ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MAX	UNITS
I _R	V _R =Rated V _{RRM}	0.50	mA
I _R	V _R =Rated V _{RRM} , T _A =100°C	10	mA
V _F	I _F =1.0A (CMMSH1-20, -20G)	0.45	V
V _F	I _F =1.0A (CMMSH1-40, -40G)	0.55	V
V _F	I _F =1.0A (CMMSH1-60, -60G)	0.70	V
V _F	I _F =1.0A (CMMSH1-100, -100G)	0.85	V

Notes: (1) FR-4 Epoxy PC Board with Copper Mounting Pad Area of 2.9mm²

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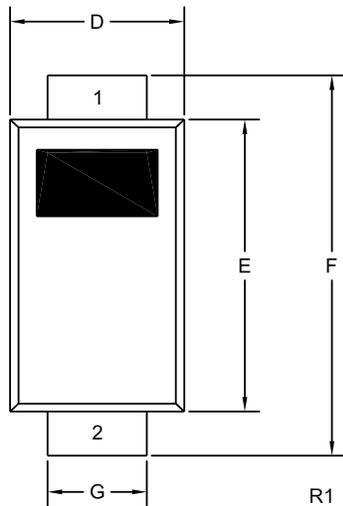
CMMSH1-20 CMMSH1-20G*
CMMSH1-40 CMMSH1-40G*
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ELECTRICAL CHARACTERISTICS - Continued: ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	TYP	UNITS
C_J	$V_R=4.0\text{V}$, $f=1.0\text{MHz}$ (CMMSH1-20, -20G)	60	pF
C_J	$V_R=4.0\text{V}$, $f=1.0\text{MHz}$ (CMMSH1-40, -40G)	60	pF
C_J	$V_R=4.0\text{V}$, $f=1.0\text{MHz}$ (CMMSH1-60, -60G)	50	pF
C_J	$V_R=4.0\text{V}$, $f=1.0\text{MHz}$ (CMMSH1-100, -100G)	40	pF

SOD-123F CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	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)

LEAD CODE:

- 1) Cathode
- 2) Anode

MARKING CODES:

DEVICE	CODE
CMMSH1-20	CS20F
CMMSH1-40	CS40F
CMMSH1-60	CS60F
CMMSH1-100	CS100F
CMMSH1-20G*	CS20G
CMMSH1-40G*	CS40G
CMMSH1-60G*	CS60G
CMMSH1-100G*	CS100G

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