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

SURFACE MOUNT SILICON SCHOTTKY RECTIFIERS 1.0 AMP, 20 THRU 100 VOLTS

SOD-123F CASE

Central™ Semiconductor Corp.

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
CMMSH1-20	CS20F
CMMSH1-40	CS40F
CMMSH1-60	CS60F
CMMSH1-100	CS100F

Halogen Free Devices:

DEVICE	CODE
CMMSH1-20G	CS20G
CMMSH1-40G	CS40G
CMMSH1-60G	CS60G
CMMSH1-100G	CS100G

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
- High Current, Low Forward Voltage
- Thermally efficient Flat Lead package design
- Devices with 'G' suffix are ***Halogen Free*** by design

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

		CMMSH1				
	SYMBOL	-20 -20G	-40 -40G	-60 -60G	-100 -100G	UNITS
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 Temperature Range	T_J		-65 to +125			°C
Storage Temperature Range	T_{stg}		-65 to +150			°C
Thermal Resistance	Θ_{JA}		88			°C/W

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

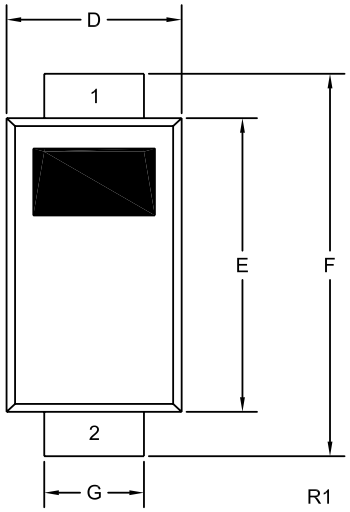
SYMBOL	TEST CONDITIONS	MAX	UNITS
I_R	V_R=Rated V_{RRM}	0.50	mA
I_R	V_R=Rated V_{RRM}, T_A=100°C	10	mA
V_F	I_F=1.0A (CMMSH1-20, -20G)	0.45	V
V_F	I_F=1.0A (CMMSH1-40, -40G)	0.55	V
V_F	I_F=1.0A (CMMSH1-60, -60G)	0.70	V
V_F	I_F=1.0A (CMMSH1-100, -100G)	0.85	V

Notes: (1) FR-4 Epoxy PC Board with Copper Mounting Pad Area of 2.9mm^2

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

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

SOD-123F CASE - MECHANICAL OUTLINE



DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	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