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

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

Central™ Semiconductor Corp.

SOD-123F CASE

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.

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

MARKING CODES:

DEVICE	MARKING CODE
CMMSH1-20	CS20F
CMMSH1-40	CS40F
CMMSH1-60	CS60F
CMMSH1-100	CS100F

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

	SYMBOL	CMMSH1-20	CMMSH1-40	CMMSH1-60	CMMSH1-100	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		1.42			W
Operating and Storage Junction Temperature	T_J,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	TYP	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)		0.45	V
V_F	I_F=1.0A (CMMSH1-40)		0.55	V
V_F	I_F=1.0A (CMMSH1-60)		0.70	V
V_F	I_F=1.0A (CMMSH1-100)		0.85	V
C_J	V_R=4.0V, f=1.0MHz (CMMSH1-20)	100		pF
C_J	V_R=4.0V, f=1.0MHz (CMMSH1-40)	80		pF
C_J	V_R=4.0V, f=1.0MHz (CMMSH1-60)	50		pF
C_J	V_R=4.0V, f=1.0MHz (CMMSH1-100)	30		pF

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

R2 (25-October 2005)

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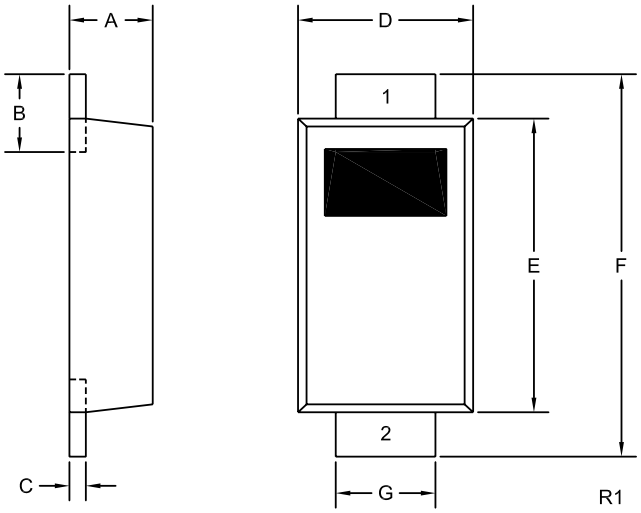
CMMSH1-100

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

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	**MARKING CODE**
CMMSH1-20	CS20F
CMMSH1-40	CS40F
CMMSH1-60	CS60F
CMMSH1-100	CS100F

R2 (25-October 2005)