THE DATASHEET OF

CMSH1-20M TR13

CMSH1-20M CMSH1-60M
CMSH1-40M CMSH1-100M

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

SMA CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMSH1-20M series 1.0 Amp surface mount silicon Schottky rectifier is a well constructed, highly reliable component designed for use in all types of commercial, industrial, entertainment, computer, and automotive applications.

MARKING CODE: SEE MARKING CODE TABLE ON FOLLOWING PAGE

FEATURES:

- High reliability
- Special selections available

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

	SYMBOL	CMSH1 -20M	CMSH1 -40M	CMSH1 -60M	CMSH1 -100M	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	1.0			A
Average Forward Current (T_L=100°C)	I_O			1.0	1.0	A
Peak Forward Surge Current, tp=8.3ms	I_{FSM}		30			A
Power Dissipation	P_D		1.4			W
Operating and Storage Junction Temperature	T_J, T_{stg}		-65 to +150			°C
Thermal Resistance	Θ_{JA}		89			°C/W
Thermal Resistance	Θ_{JL}		30			°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 (CMSH1-20M)	0.47	0.50	V
V_F	I_F=1.0A (CMSH1-40M)	0.48	0.50	V
V_F	I_F=1.0A (CMSH1-60M)	0.60	0.70	V
V_F	I_F=1.0A (CMSH1-100M)	0.76	0.85	V
C_J	V_R=4.0V, f=1.0MHz (CMSH1-20M)	42		pF
C_J	V_R=4.0V, f=1.0MHz (CMSH1-40M)	55		pF
C_J	V_R=4.0V, f=1.0MHz (CMSH1-60M)	43		pF
C_J	V_R=4.0V, f=1.0MHz (CMSH1-100M)	29		pF

CMSH1-20M CMSH1-60M
CMSH1-40M CMSH1-100M

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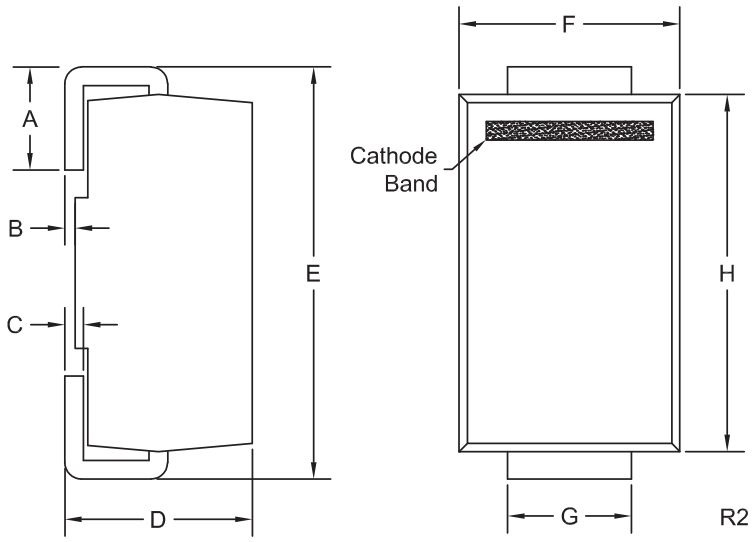
SMA CASE - MECHANICAL OUTLINE



DEVICE	MARKING CODE
CMSH1-20M	CS20M
CMSH1-40M	CS40M
CMSH1-60M	CS60M
CMSH1-100M	CS100M

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.030	0.060	0.76	1.52
B	0.004	0.008	0.10	0.20
C	0.006	0.012	0.15	0.30
D	0.078	0.103	1.98	2.62
E	0.188	0.220	4.78	5.59
F	0.090	0.115	2.29	2.92
G	0.050	0.070	1.27	1.78
H	0.157	0.181	3.99	4.60

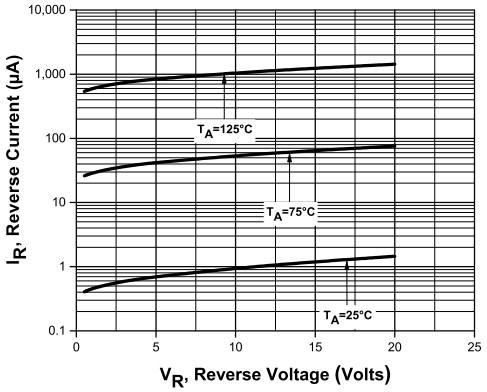
SMA (REV: R2)

CMSH1-20M CMSH1-60M
CMSH1-40M CMSH1-100M

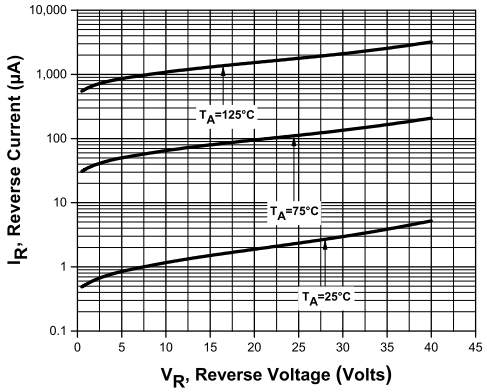
SURFACE MOUNT SILICON SCHOTTKY RECTIFIERS 1.0 AMP, 20 THRU 100 VOLT

TYPICAL ELECTRICAL CHARACTERISTICS

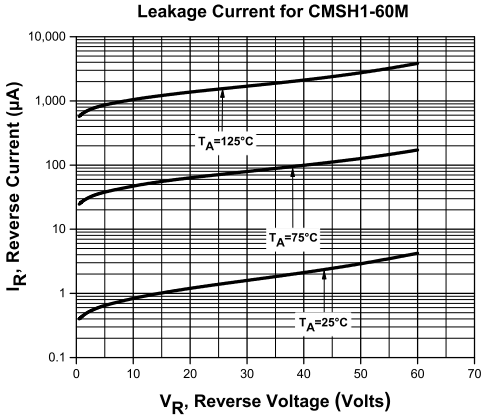
Leakage Current for CMSH1-20M



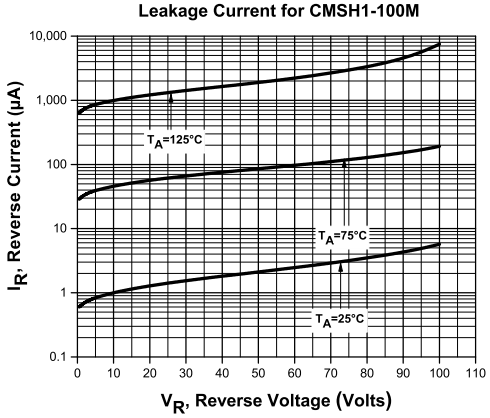
Leakage Current for CMSH1-40M



Leakage Current for CMSH1-60M



Leakage Current for CMSH1-100M

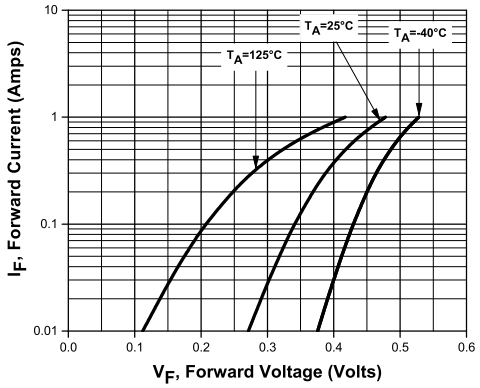


CMSH1-20M CMSH1-60M
CMSH1-40M CMSH1-100M

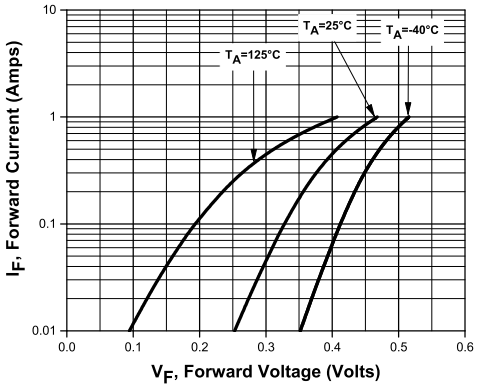
SURFACE MOUNT SILICON SCHOTTKY RECTIFIERS 1.0 AMP, 20 THRU 100 VOLT

TYPICAL ELECTRICAL CHARACTERISTICS

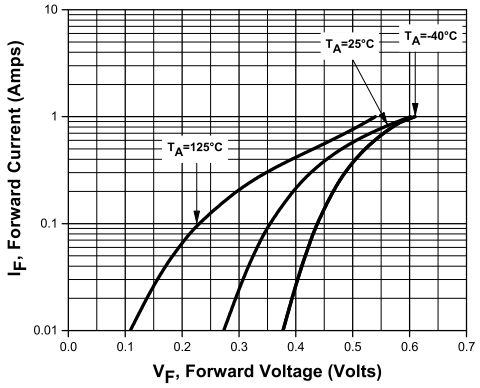
Forward Voltage for CMSH1-20M



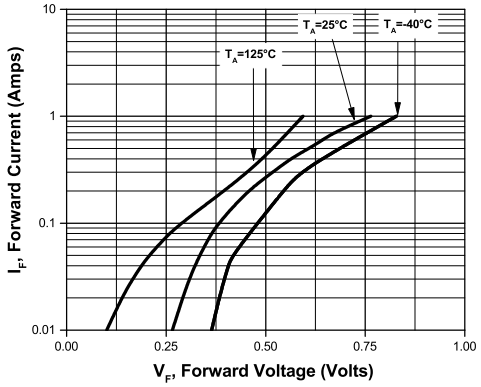
Forward Voltage for CMSH1-40M



Forward Voltage for CMSH1-60M



Forward Voltage for CMSH1-100M

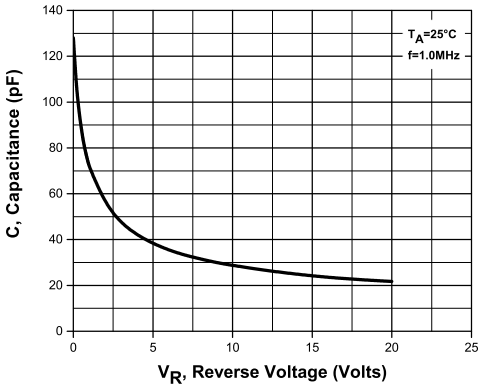


CMSH1-20M CMSH1-60M
CMSH1-40M CMSH1-100M

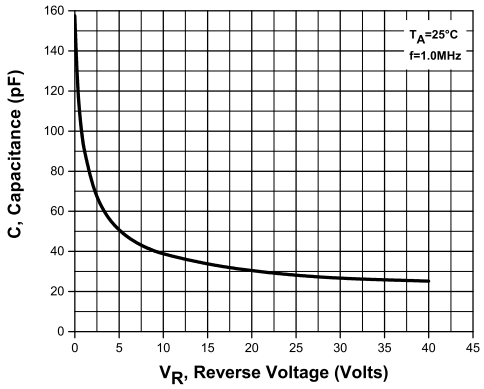
SURFACE MOUNT SILICON SCHOTTKY RECTIFIERS 1.0 AMP, 20 THRU 100 VOLT

TYPICAL ELECTRICAL CHARACTERISTICS

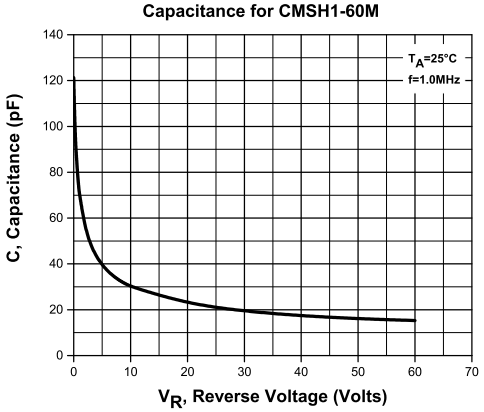
Capacitance for CMSH1-20M



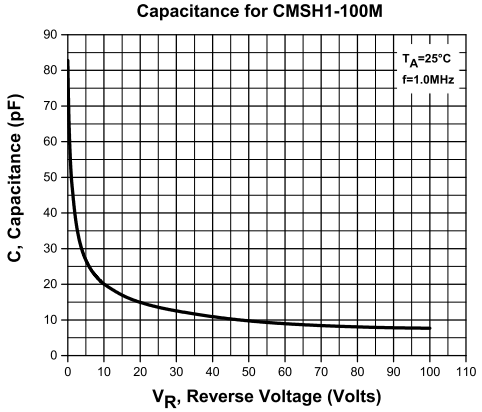
Capacitance for CMSH1-40M



Capacitance for CMSH1-60M



Capacitance for CMSH1-100M

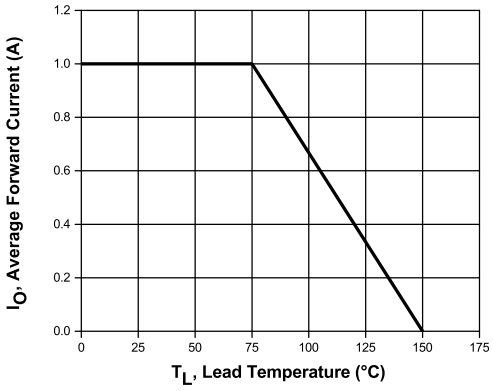


CMSH1-20M CMSH1-60M
CMSH1-40M CMSH1-100M

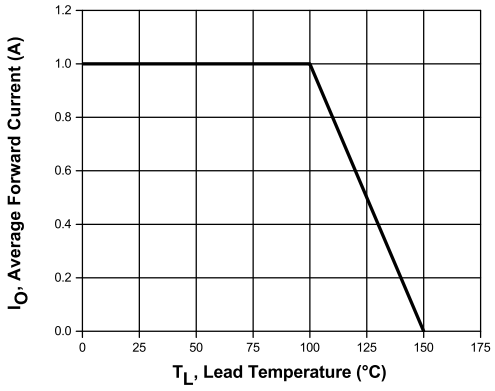
SURFACE MOUNT SILICON SCHOTTKY RECTIFIERS 1.0 AMP, 20 THRU 100 VOLT

TYPICAL ELECTRICAL CHARACTERISTICS

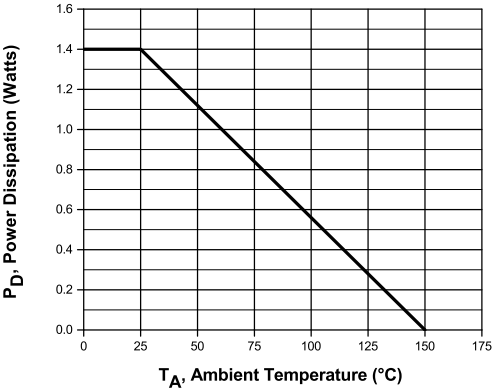
Current Derating for CMSH1-20M & CMSH1-40M



Current Derating for CMSH1-60M & CMSH1-100M



Power Derating



OUTSTANDING SUPPORT AND SUPERIOR SERVICES

PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

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- Cost Control Management
- Shortage Management
- Alternative Solution
- Excess Inventory Management