

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

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



www.centrasemi.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**



**SMA CASE**

**FEATURES:**

- High reliability
- Special selections available

**MAXIMUM RATINGS:** (T<sub>A</sub>=25°C unless otherwise noted)

	SYMBOL	CMSH1 -20M	CMSH1 -40M	CMSH1 -60M	CMSH1 -100M	UNITS
Peak Repetitive Reverse Voltage	V <sub>R</sub> RM	20	40	60	100	V
DC Blocking Voltage	V <sub>R</sub>	20	40	60	100	V
RMS Reverse Voltage	V <sub>R</sub> (RMS)	14	28	42	70	V
Average Forward Current (T <sub>L</sub> =75°C)	I <sub>O</sub>	1.0	1.0			A
Average Forward Current (T <sub>L</sub> =100°C)	I <sub>O</sub>			1.0	1.0	A
Peak Forward Surge Current, tp=8.3ms	I <sub>FSM</sub>			30		A
Power Dissipation	P <sub>D</sub>			1.4		W
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>			-65 to +150		°C
Thermal Resistance	θ <sub>JA</sub>			89		°C/W
Thermal Resistance	θ <sub>JL</sub>			30		°C/W

**ELECTRICAL CHARACTERISTICS:** (T<sub>A</sub>=25°C unless otherwise noted)

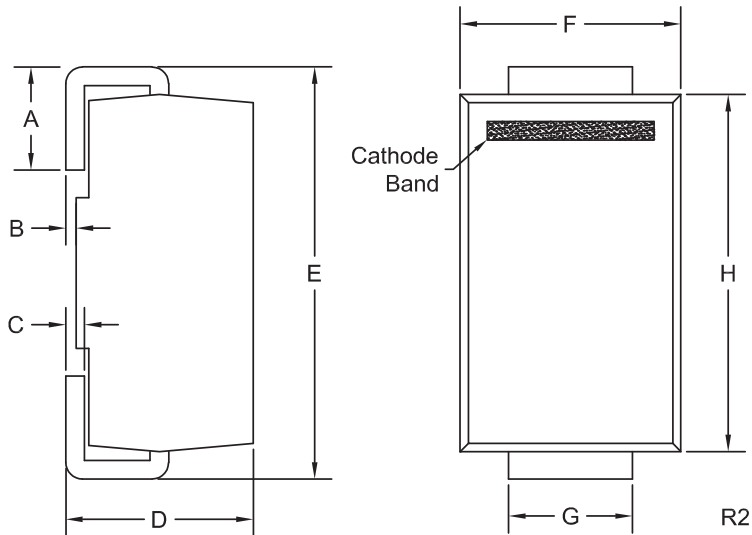
SYMBOL	TEST CONDITIONS	TYP	MAX	UNITS
I <sub>R</sub>	V <sub>R</sub> =Rated V <sub>RRM</sub>		0.50	mA
I <sub>R</sub>	V <sub>R</sub> =Rated V <sub>RRM</sub> , T <sub>A</sub> =100°C		10	mA
V <sub>F</sub>	I <sub>F</sub> =1.0A (CMSH1-20M)	0.47	0.50	V
V <sub>F</sub>	I <sub>F</sub> =1.0A (CMSH1-40M)	0.48	0.50	V
V <sub>F</sub>	I <sub>F</sub> =1.0A (CMSH1-60M)	0.60	0.70	V
V <sub>F</sub>	I <sub>F</sub> =1.0A (CMSH1-100M)	0.76	0.85	V
C <sub>J</sub>	V <sub>R</sub> =4.0V, f=1.0MHz (CMSH1-20M)	42		pF
C <sub>J</sub>	V <sub>R</sub> =4.0V, f=1.0MHz (CMSH1-40M)	55		pF
C <sub>J</sub>	V <sub>R</sub> =4.0V, f=1.0MHz (CMSH1-60M)	43		pF
C <sub>J</sub>	V <sub>R</sub> =4.0V, f=1.0MHz (CMSH1-100M)	29		pF

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**SMA CASE - MECHANICAL OUTLINE**



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

SYMBOL	INCHES		MILLIMETERS	
	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)

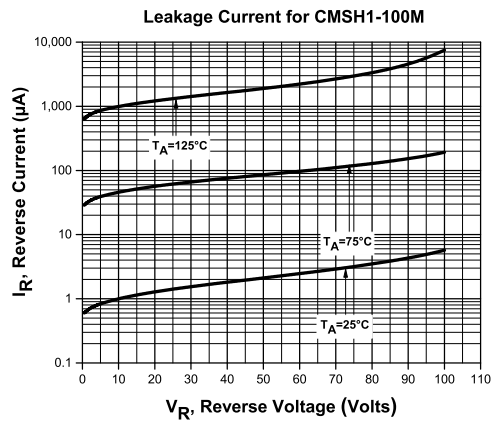
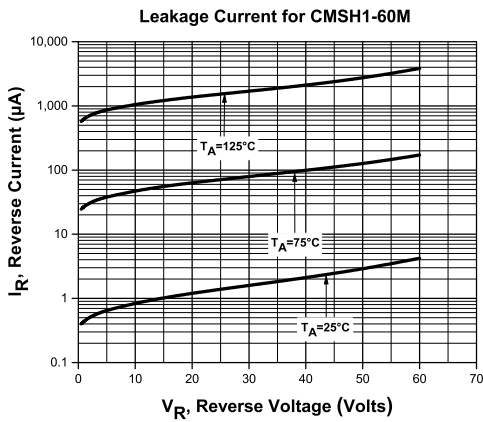
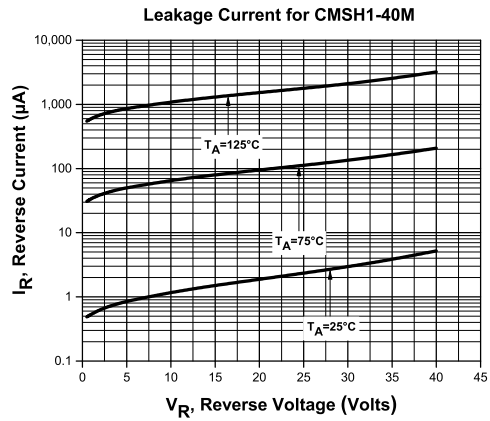
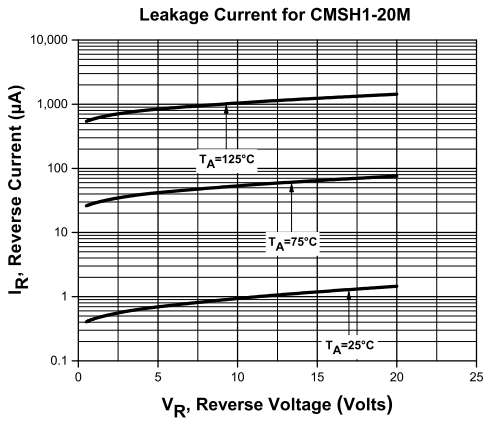
R7 (24-November 2015)

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TYPICAL ELECTRICAL CHARACTERISTICS



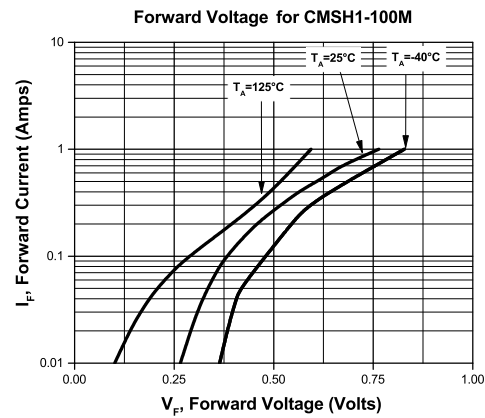
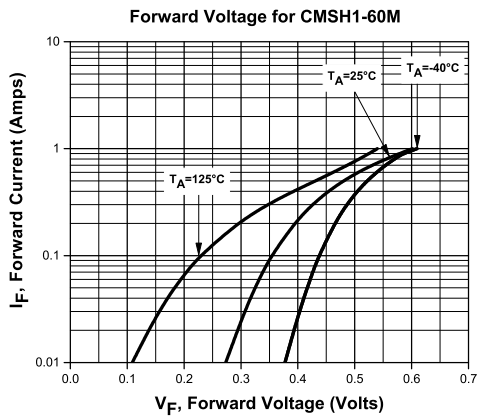
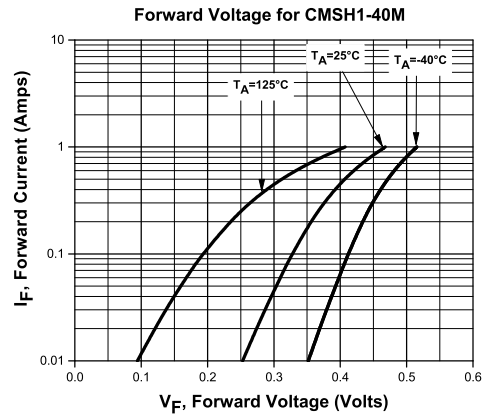
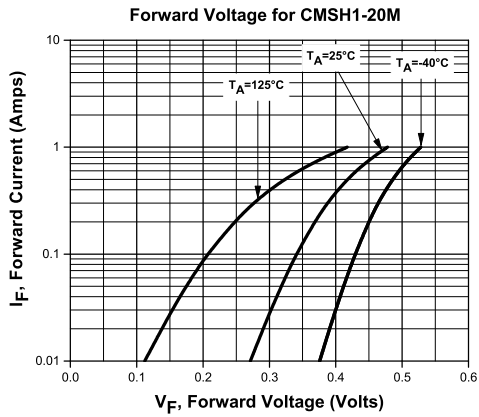
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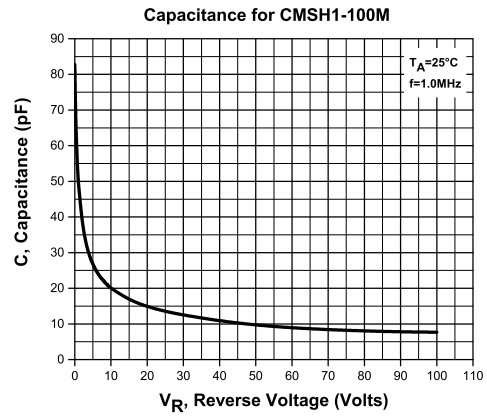
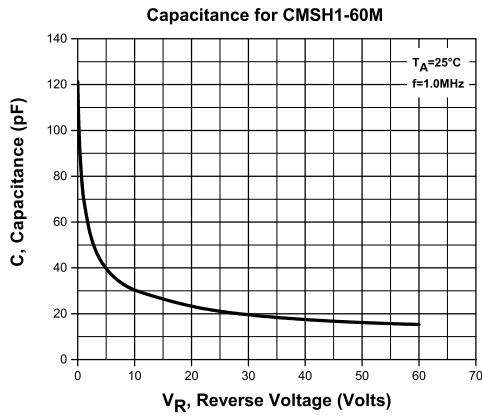
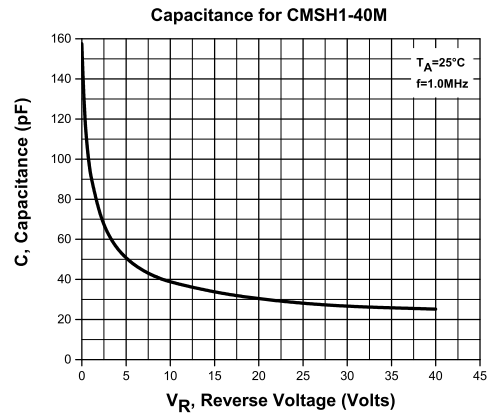
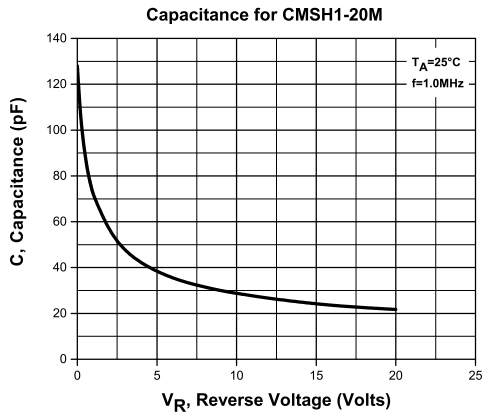
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### TYPICAL ELECTRICAL CHARACTERISTICS



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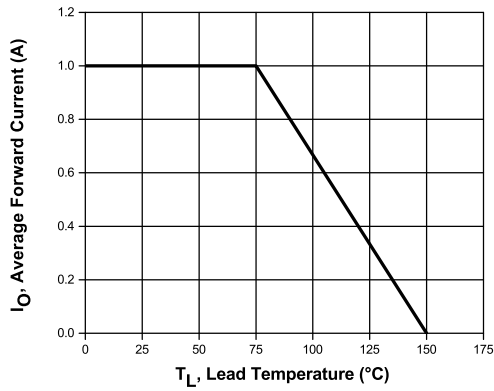
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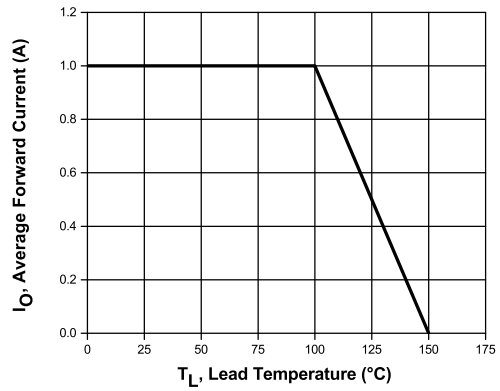


### TYPICAL ELECTRICAL CHARACTERISTICS

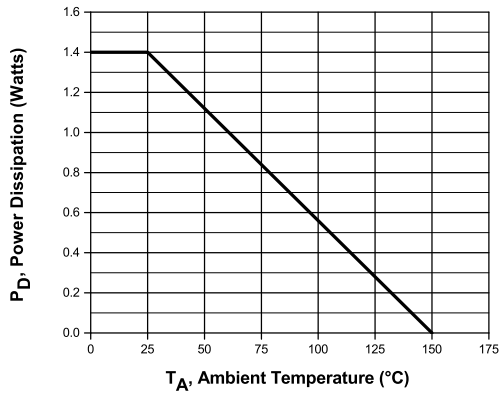
Current Derating for CMSH1-20M & CMSH1-40M



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



Power Derating



R7 (24-November 2015)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### 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

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### DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2<sup>nd</sup> 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

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### CONTACT US

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