

CMSH2-20M CMSH2-60M  
 CMSH2-40M CMSH2-100M

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



www.centrasemi.com

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMSH2-20M series 2.0 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 current capability
- Flammability classification UL94V-0
- High reliability

**MAXIMUM RATINGS:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

		<b>CMSH2</b>	<b>CMSH2</b>	<b>CMSH2</b>	<b>CMSH2</b>	
	<b>SYMBOL</b>	<b>-20M</b>	<b>-40M</b>	<b>-60M</b>	<b>-100M</b>	<b>UNITS</b>
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	71	V
Average Forward Current ( $T_L=75^\circ\text{C}$ )	$I_O$			2.0		A
Peak Forward Surge Current, $t_p=8.3\text{ms}$	$I_{FSM}$			50		A
Power Dissipation	$P_D$			1.4		W
Operating and Storage Junction Temperature	$T_J, T_{stg}$			-65 to +150		$^\circ\text{C}$
Thermal Resistance	$\theta_{JA}$			89		$^\circ\text{C/W}$
Thermal Resistance	$\theta_{JL}$			30		$^\circ\text{C/W}$

**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

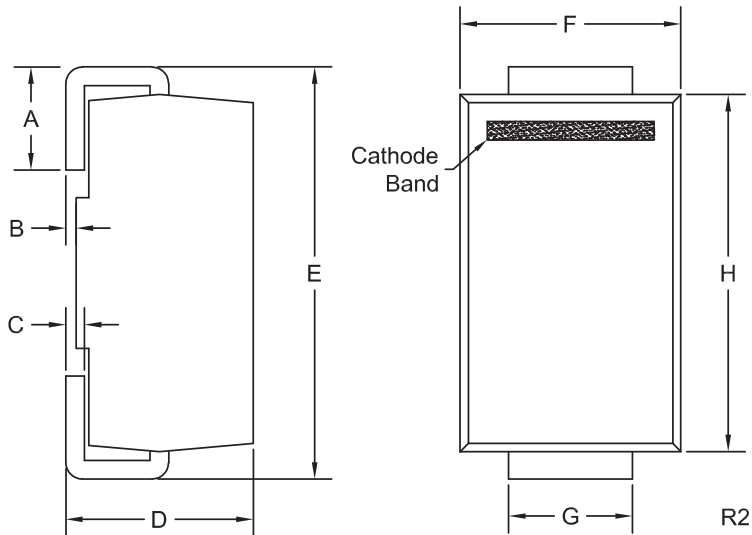
<b>SYMBOL</b>	<b>TEST CONDITIONS</b>	<b>TYP</b>	<b>MAX</b>	<b>UNITS</b>
$I_R$	$V_R=\text{Rated } V_{RRM}$		0.50	mA
$I_R$	$V_R=\text{Rated } V_{RRM}, T_A=100^\circ\text{C}$		20	mA
$V_F$	$I_F=2.0\text{A}$ (CMSH2-20M)	0.44	0.55	V
$V_F$	$I_F=2.0\text{A}$ (CMSH2-40M)	0.47	0.55	V
$V_F$	$I_F=2.0\text{A}$ (CMSH2-60M)	0.53	0.70	V
$V_F$	$I_F=2.0\text{A}$ (CMSH2-100M)	0.76	0.85	V
$C_J$	$V_R=4.0\text{V}, f=1.0\text{MHz}$ (CMSH2-20M)	139		pF
$C_J$	$V_R=4.0\text{V}, f=1.0\text{MHz}$ (CMSH2-40M)	101		pF
$C_J$	$V_R=4.0\text{V}, f=1.0\text{MHz}$ (CMSH2-60M)	94		pF
$C_J$	$V_R=4.0\text{V}, f=1.0\text{MHz}$ (CMSH2-100M)	74		pF

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**SMA CASE - MECHANICAL OUTLINE**



DEVICE	MARKING CODE
CMSH2-20M	CS220M
CMSH2-40M	CS240M
CMSH2-60M	CS260M
CMSH2-100M	CS2100M

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)

R4 (1-December 2015)

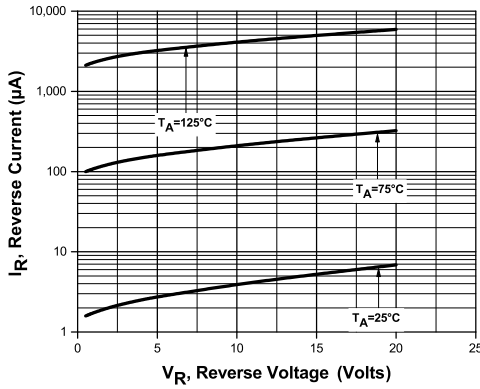
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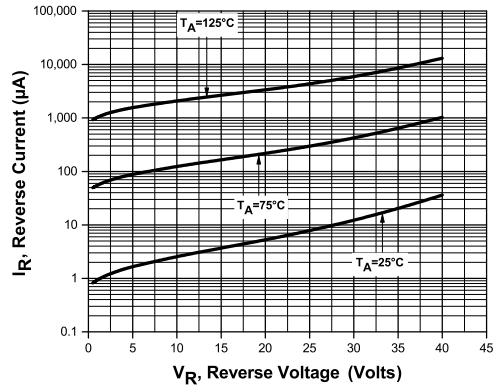


TYPICAL ELECTRICAL CHARACTERISTICS

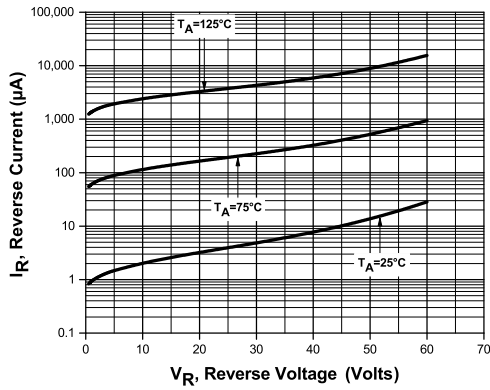
Leakage Current for CMSH2-20M



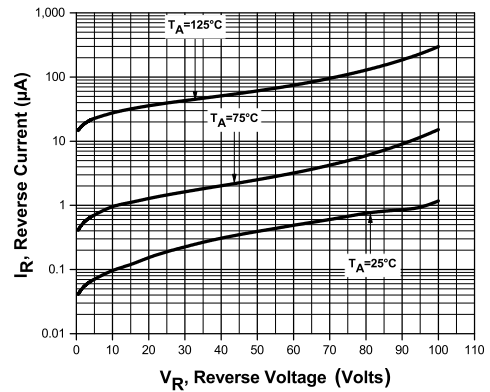
Leakage Current for CMSH2-40M



Leakage Current for CMSH2-60M



Leakage Current for CMSH2-100M



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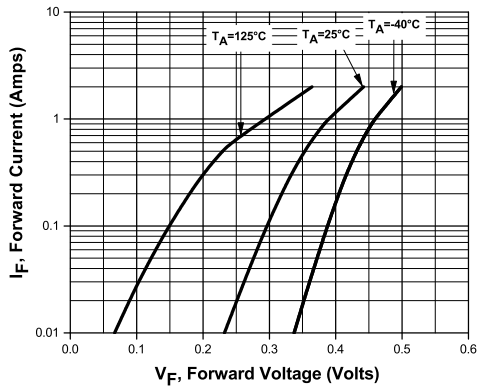
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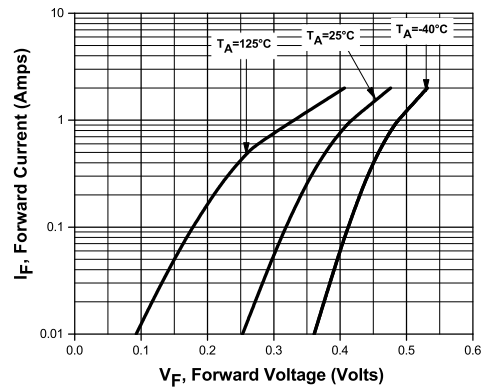


TYPICAL ELECTRICAL CHARACTERISTICS

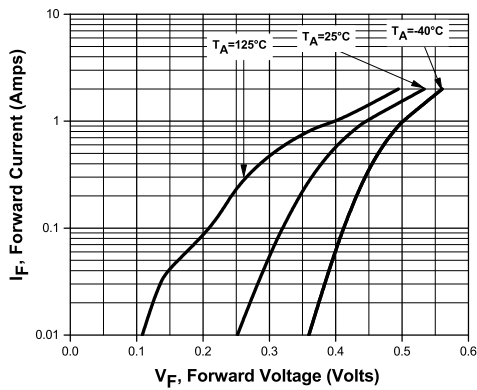
Forward Voltage for CMSH2-20M



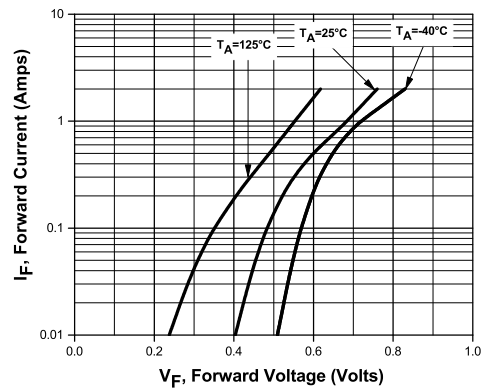
Forward Voltage for CMSH2-40M



Forward Voltage for CMSH2-60M



Forward Voltage for CMSH2-100M

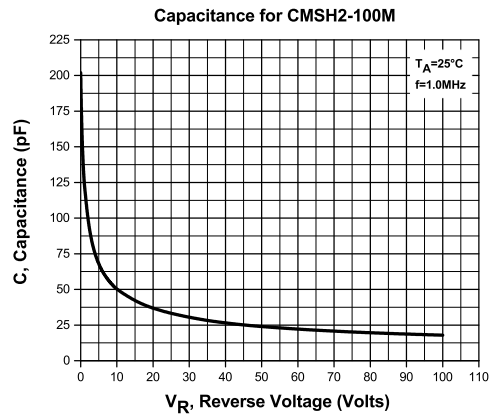
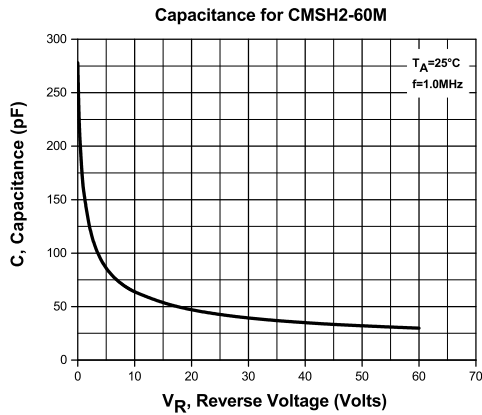
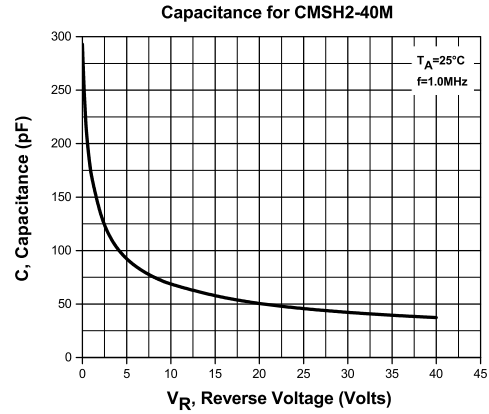
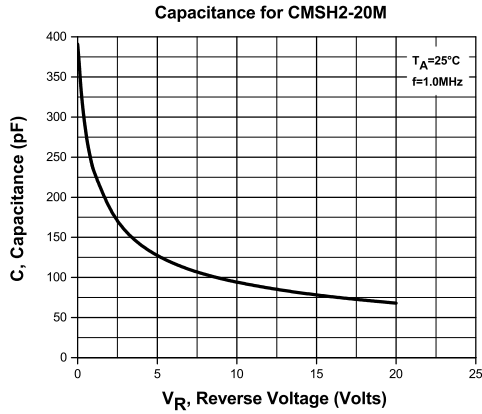


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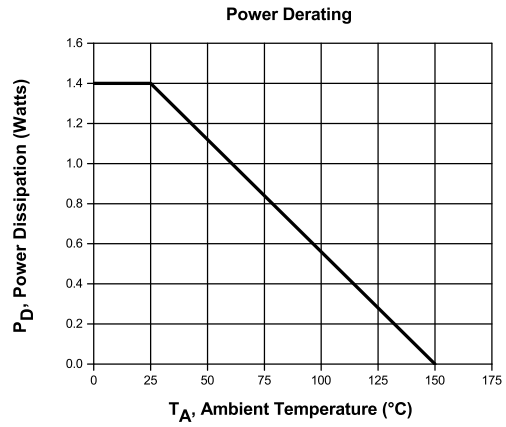
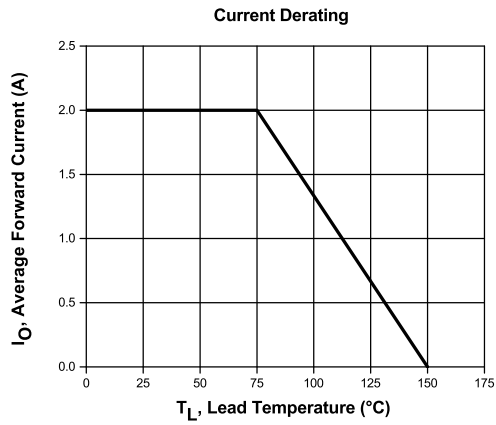
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### TYPICAL ELECTRICAL CHARACTERISTICS



R4 (1-December 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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### 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).

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### CONTACT US

#### Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.  
145 Adams Avenue  
Hauppauge, NY 11788 USA  
Main Tel: (631) 435-1110  
Main Fax: (631) 435-1824  
Support Team Fax: (631) 435-3388  
[www.centrasemi.com](http://www.centrasemi.com)

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