



**THE DATASHEET OF  
CMSH3-60 TR13 PBFREE**



CMSH3-20 CMSH3-60  
 CMSH3-40 CMSH3-100

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



**SMC CASE**



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMSH3-20 series 3.0 Amp surface mount silicon Schottky rectifiers are highly reliable components designed for use in all types of commercial, industrial, entertainment, computer, and automotive applications. To order devices on 16mm Tape and Reel (3000/13" Reel), add TR13 suffix to part number.

**MARKING CODE: SEE MARKING CODE TABLE ON FOLLOWING PAGE**

**FEATURES:**

- High reliability
- Special selections available
- "C" bend construction provides strain relief when mounted on PC board

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

	SYMBOL	CMSH3 -20	CMSH3 -40	CMSH3 -60	CMSH3 -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	71	V
Average Forward Current ( $T_A=75^\circ\text{C}$ )	$I_O$			3.0		A
Peak Forward Surge Current, $t_p=8.3\text{ms}$	$I_{FSM}$			150		A
Operating Junction Temperature	$T_J$		-65 to +150			$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-65 to +175			$^\circ\text{C}$
Thermal Resistance	$\Theta_{JL}$		10			$^\circ\text{C/W}$

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

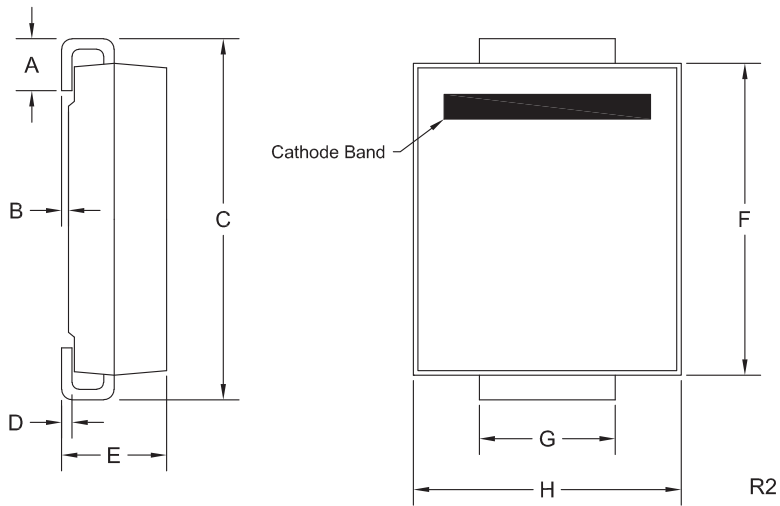
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_R$	$V_R=\text{Rated } V_{RRM}$			500	$\mu\text{A}$
$I_R$	$V_R=\text{Rated } V_{RRM}, T_A=100^\circ\text{C}$			20	mA
$V_F$	$I_F=3.0\text{A (CMSH3-20, -40)}$		0.47	0.50	V
$V_F$	$I_F=3.0\text{A (CMSH3-60)}$		0.56	0.70	V
$V_F$	$I_F=3.0\text{A (CMSH3-100)}$		0.75	0.80	V
$C_J$	$V_R=0, f=1.0\text{MHz (CMSH3-20)}$		511		pF
$C_J$	$V_R=0, f=1.0\text{MHz (CMSH3-40)}$		510		pF
$C_J$	$V_R=0, f=1.0\text{MHz (CMSH3-60)}$		278		pF
$C_J$	$V_R=0, f=1.0\text{MHz (CMSH3-100)}$		320		pF

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**SMC CASE - MECHANICAL OUTLINE**



DEVICE	MARKING CODE
CMSH3-20	CS320
CMSH3-40	CS340
CMSH3-60	CS360
CMSH3-100	CS3100

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.030	0.060	0.76	1.52
B	0.002	0.008	0.05	0.20
C	0.305	0.320	7.75	8.13
D	0.006	0.012	0.15	0.31
E	0.079	0.103	2.00	2.62
F	0.260	0.280	6.60	7.11
G	0.108	0.128	2.75	3.25
H	0.220	0.245	5.59	6.22

SMC (REV: R2)

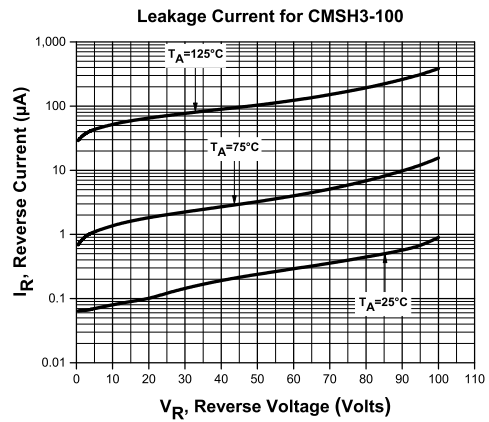
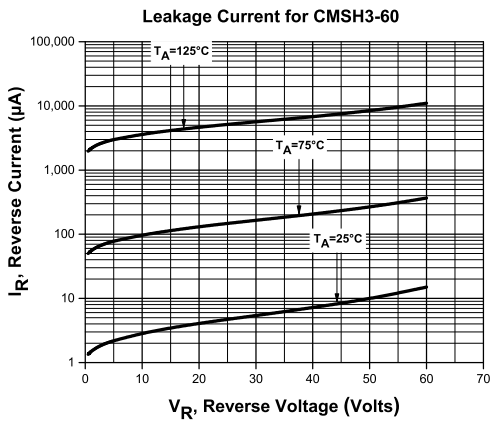
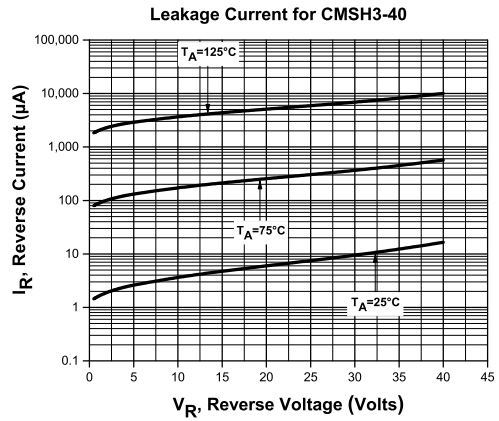
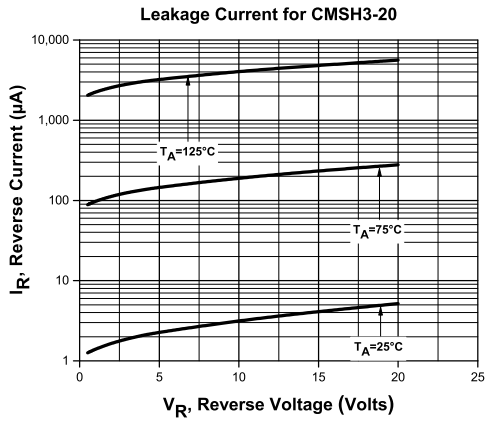
R6 (5-January 2016)

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TYPICAL ELECTRICAL CHARACTERISTICS



R6 (5-January 2016)

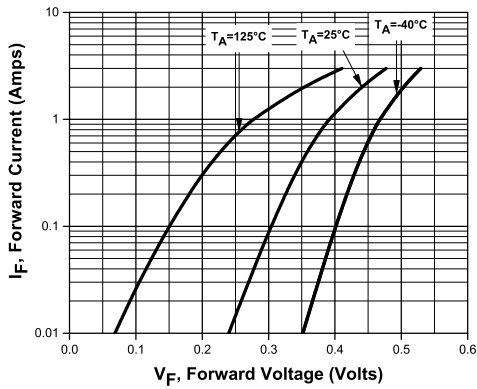
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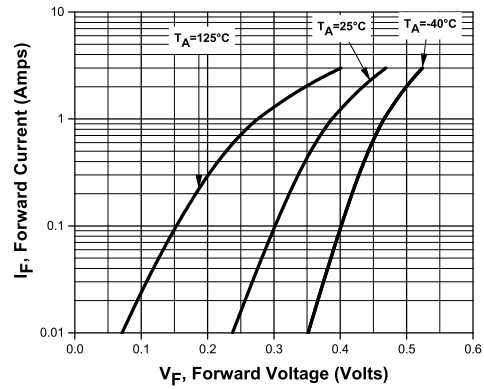


TYPICAL ELECTRICAL CHARACTERISTICS

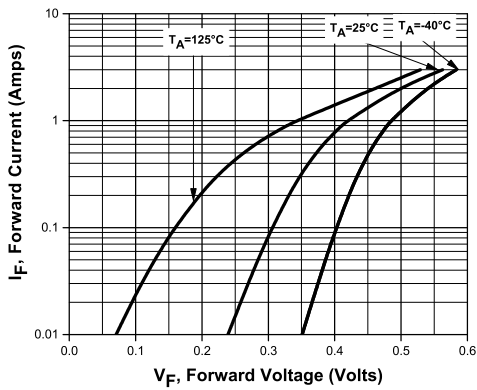
Forward Voltage for CMSH3-20



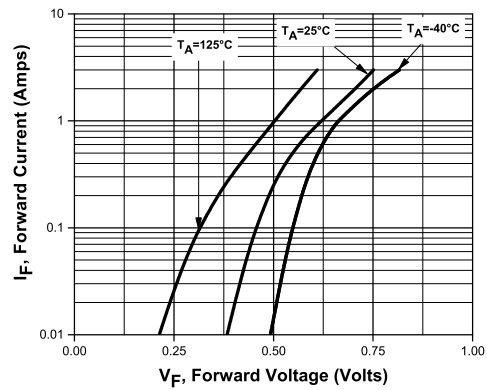
Forward Voltage for CMSH3-40



Forward Voltage for CMSH3-60



Forward Voltage for CMSH3-100



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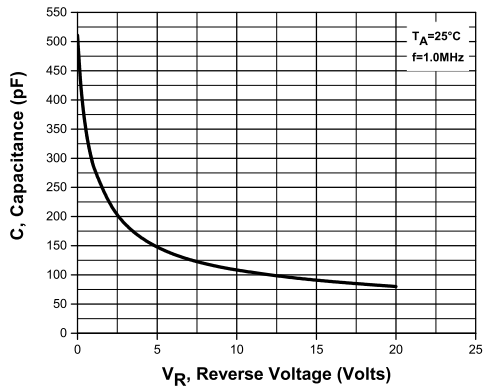
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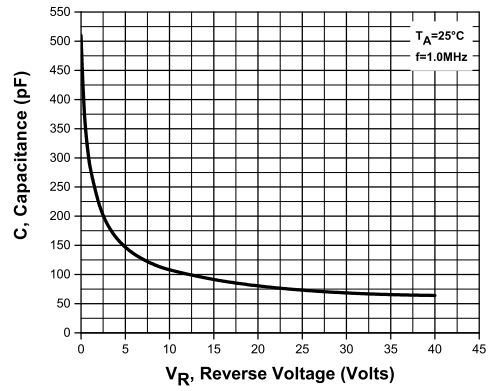


**TYPICAL ELECTRICAL CHARACTERISTICS**

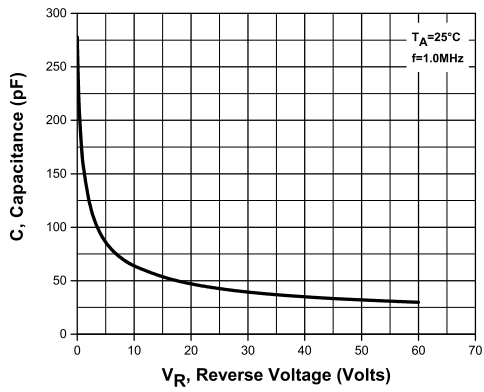
Capacitance for CMSH3-20



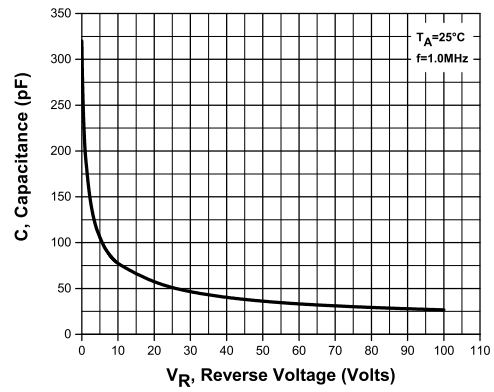
Capacitance for CMSH3-40



Capacitance for CMSH3-60



Capacitance for CMSH3-100



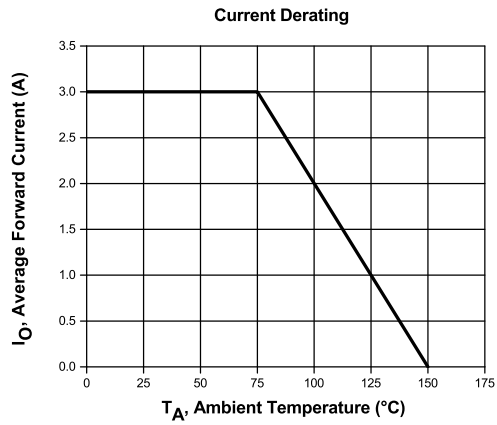
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### TYPICAL ELECTRICAL CHARACTERISTICS



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## 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

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## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- [⊖ View CMSH3-60 TR13 PBFREE on WIN SOURCE](#)
- [⊖ Central Semiconductor Corp Information](#)

## Optimize Your Supply Chain with WIN SOURCE Solutions

- ✓ Global Sourcing Solution
- ✓ Obsolete Management
- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management