

CMSH5-20 CMSH5-60  
 CMSH5-40 CMSH5-100

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



**SMC CASE**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMSH5-20 series 5.0 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<sub>A</sub>=25°C unless otherwise noted)

	SYMBOL	CMSH5 -20	CMSH5 -40	CMSH5 -60	CMSH5 -100	UNITS
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	20	40	60	100	V
DC Blocking Voltage	V <sub>R</sub>	20	40	60	100	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	14	28	42	71	V
Average Forward Current (T <sub>A</sub> =75°C)	I <sub>O</sub>			5.0		A
Peak Forward Surge Current, tp=8.3ms	I <sub>FSM</sub>			125		A
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>			-65 to +150		°C
Thermal Resistance	θ <sub>JL</sub>			10		°C/W

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

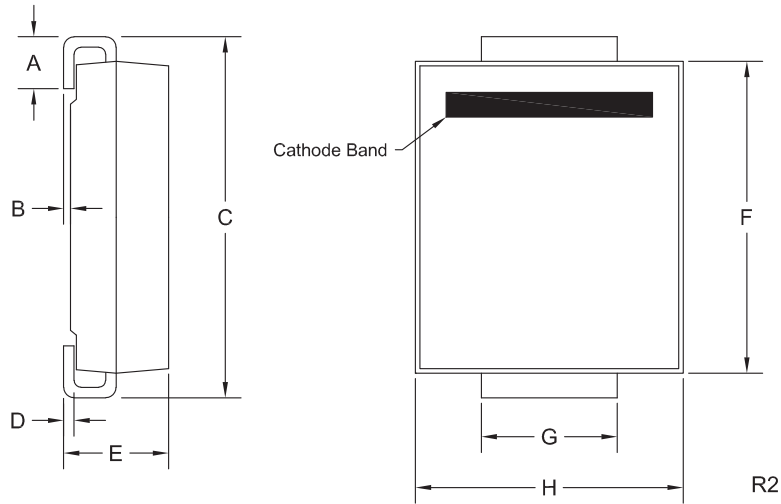
SYMBOL	TEST CONDITIONS	TYP	MAX	UNITS
I <sub>R</sub>	V <sub>R</sub> =Rated V <sub>RRM</sub>		3.0	mA
I <sub>R</sub>	V <sub>R</sub> =Rated V <sub>RRM</sub> , T <sub>A</sub> =100°C		20	mA
V <sub>F</sub>	I <sub>F</sub> =5.0A (CMSH5-20)	0.48	0.55	V
V <sub>F</sub>	I <sub>F</sub> =5.0A (CMSH5-40)	0.49	0.55	V
V <sub>F</sub>	I <sub>F</sub> =5.0A (CMSH5-60)	0.62	0.75	V
V <sub>F</sub>	I <sub>F</sub> =5.0A (CMSH5-100)	0.79	0.85	V
C <sub>J</sub>	V <sub>R</sub> =0.1V, f=1.0MHz (CMSH5-20)	724		pF
C <sub>J</sub>	V <sub>R</sub> =0.1V, f=1.0MHz (CMSH5-40)	708		pF
C <sub>J</sub>	V <sub>R</sub> =0.1V, f=1.0MHz (CMSH5-60)	525		pF
C <sub>J</sub>	V <sub>R</sub> =0.1V, f=1.0MHz (CMSH5-100)	476		pF

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**SMC CASE - MECHANICAL OUTLINE**



DEVICE	MARKING CODE
CMSH5-20	CS520
CMSH5-40	CS540
CMSH5-60	CS560
CMSH5-100	CS5100

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)

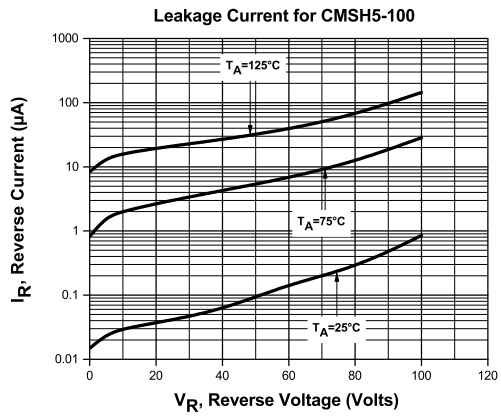
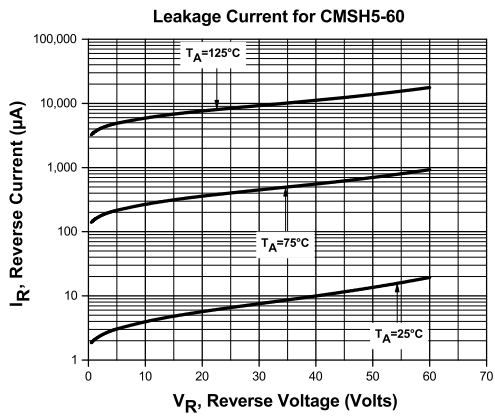
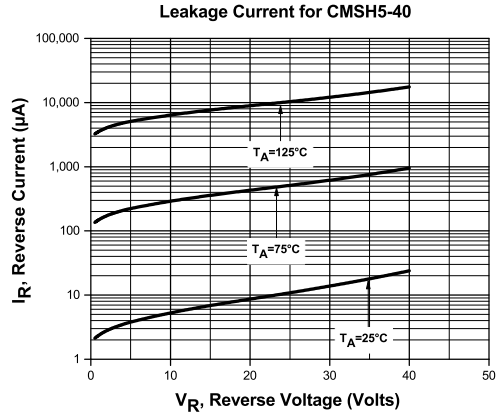
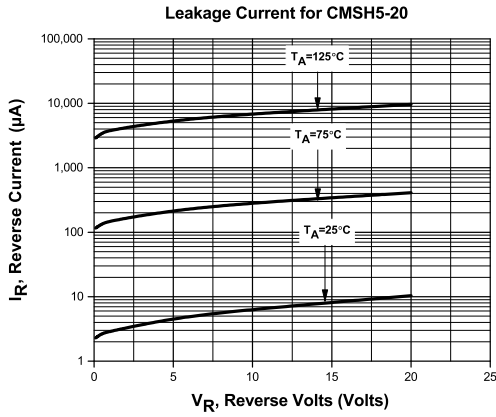
R6 (22-December 2015)

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TYPICAL ELECTRICAL CHARACTERISTICS



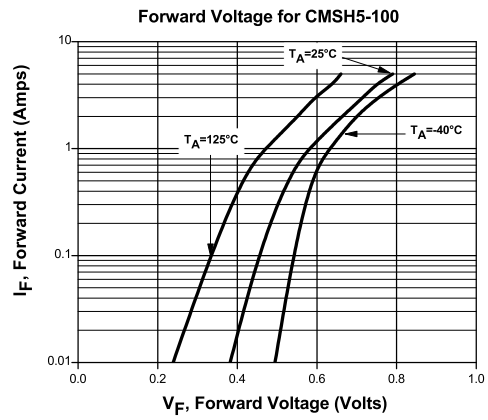
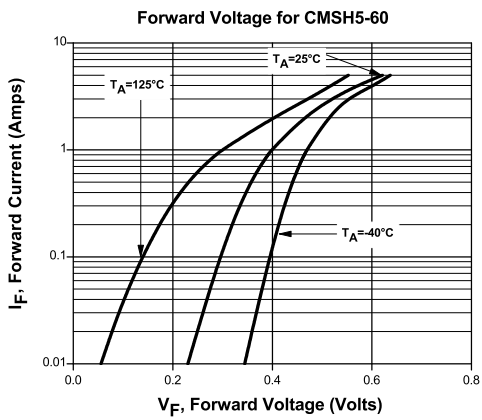
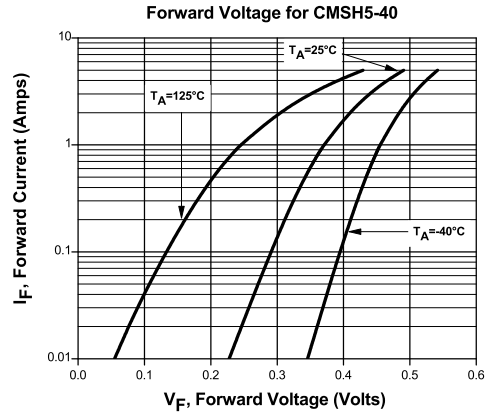
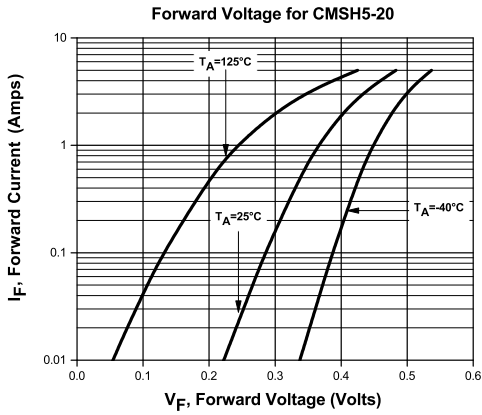
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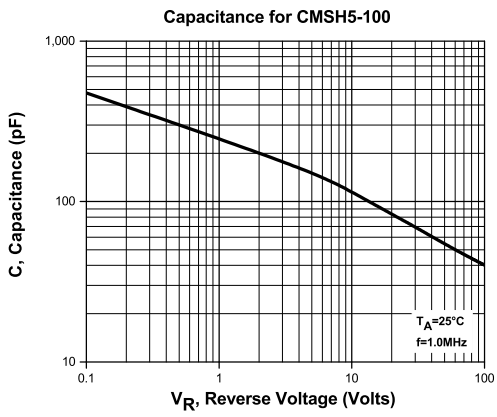
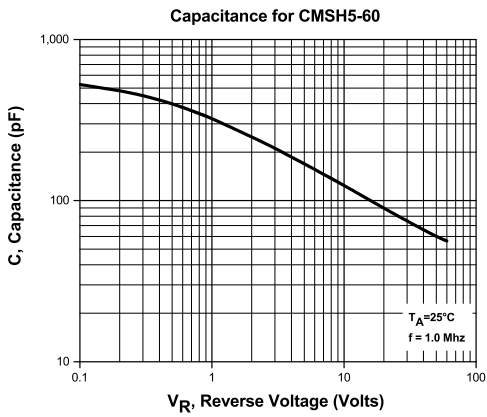
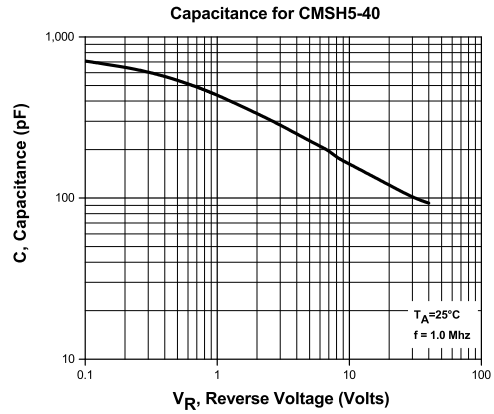
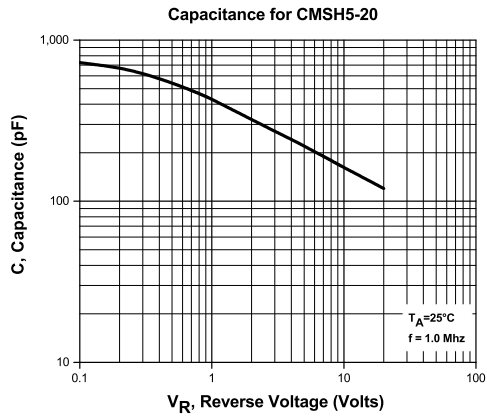
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### TYPICAL ELECTRICAL CHARACTERISTICS



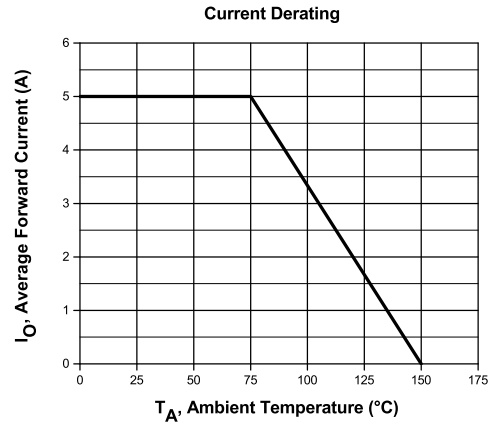
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### TYPICAL ELECTRICAL CHARACTERISTICS



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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

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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