

CMSH3-20L  
CMSH3-40L

**SURFACE MOUNT SILICON  
LOW  $V_F$   
SCHOTTKY RECTIFIERS  
4.0 AMP, 20 AND 40 VOLT**

**LOW  
 $V_F$**



**SMC CASE**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMSH3-20L and CMSH3-40L 4.0 Amp surface mount low  $V_F$  silicon Schottky rectifiers are highly reliable components designed for use in all types of commercial, industrial, entertainment, computer, and automotive applications where high efficiency is required.

**MARKING CODES: CMSH3-20L: CS320L  
CMSH3-40L: CS340L**

**FEATURES:**

- 4.0 Amp average forward current (upgraded from 3.0 Amps)
- Low forward voltage drop
- High current capability
- Flammability classification UL94V-0

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

	<b>SYMBOL</b>	<b>CMSH3-20L</b>	<b>CMSH3-40L</b>	<b>UNITS</b>
Peak Repetitive Reverse Voltage	$V_{RRM}$	20	40	V
DC Blocking Voltage	$V_R$	20	40	V
RMS Reverse Voltage	$V_R(\text{RMS})$	14	28	V
* Average Forward Current ( $T_L=90^\circ\text{C}$ )	$I_O$		4.0	A
* Peak Forward Surge Current, $t_p=8.3\text{ms}$	$I_{FSM}$		150	A
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 to +150		$^\circ\text{C}$
Thermal Resistance	$\theta_{JL}$	14		$^\circ\text{C/W}$

**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
$I_R$	$V_R=\text{Rated } V_{RRM}, T_A=100^\circ\text{C}$		35	mA
* $V_F$	$I_F=4.0\text{A (CMSH3-20L)}$	0.38	0.42	V
* $V_F$	$I_F=4.0\text{A (CMSH3-40L)}$	0.40	0.44	V
$V_F$	$I_F=3.0\text{A (CMSH3-20L)}$	0.36	0.38	V
$V_F$	$I_F=3.0\text{A (CMSH3-40L)}$	0.37	0.40	V
$C_J$	$V_R=0, f=1.0\text{MHz (CMSH3-20L)}$	797		pF
$C_J$	$V_R=0, f=1.0\text{MHz (CMSH3-40L)}$	787		pF

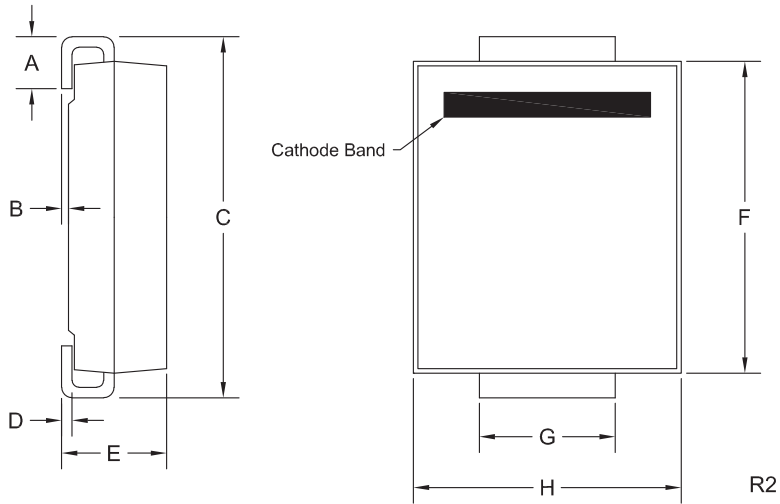
\* Upgraded Specification

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SMC CASE - MECHANICAL OUTLINE



DEVICE	MARKING CODE
CMSH3-20L	CS320L
CMSH3-40L	CS340L

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)

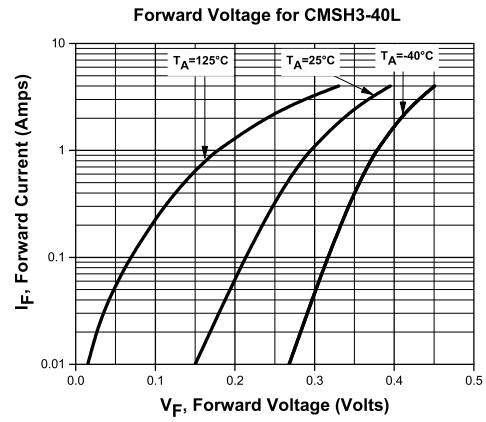
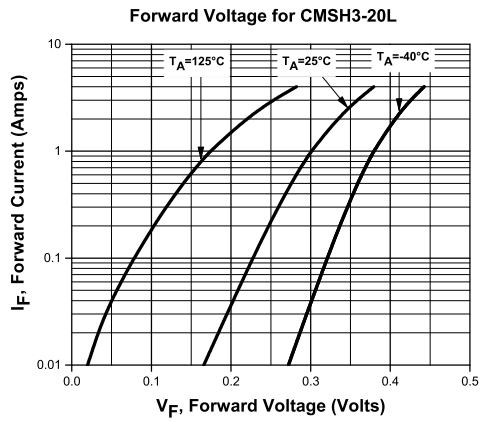
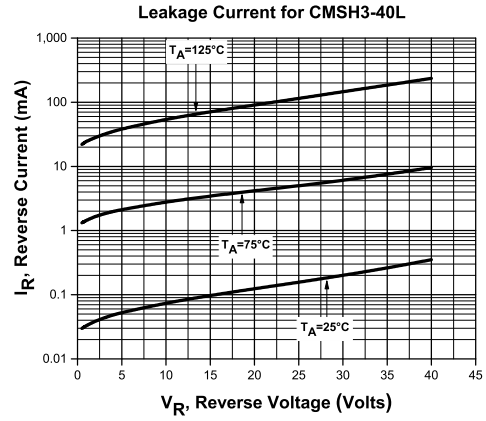
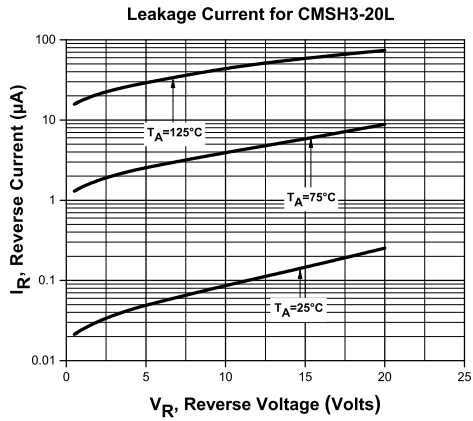
R6 (9-February 2016)

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### TYPICAL ELECTRICAL CHARACTERISTICS



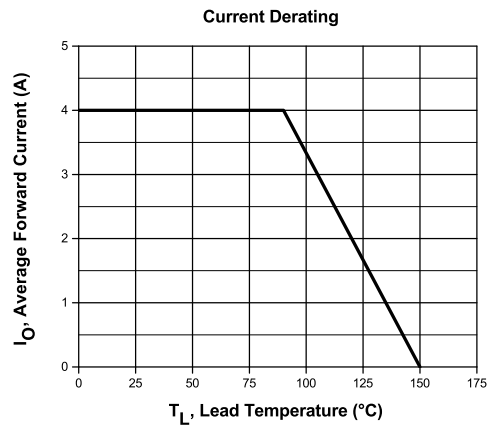
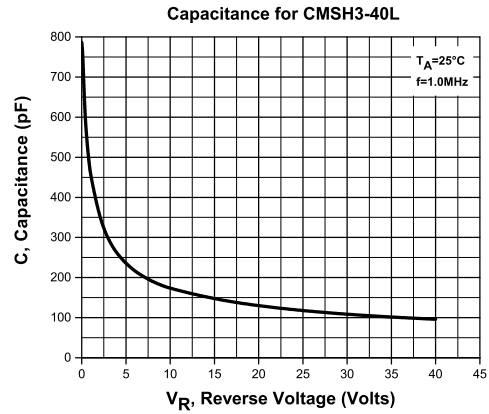
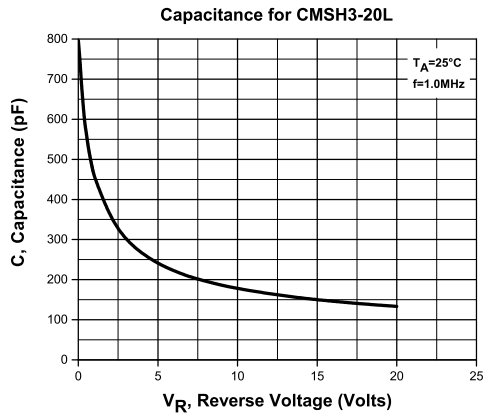
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### TYPICAL ELECTRICAL CHARACTERISTICS



R6 (9-February 2016)

## 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

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