

CMSH3-20L
CMSH3-40L

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

LOW
 V_F



SMC CASE



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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)

	SYMBOL	CMSH3-20L	CMSH3-40L	UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	20	40	V
DC Blocking Voltage	V_R	20	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	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	Θ_{JL}	14		$^\circ\text{C}/\text{W}$

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

SYMBOL	TEST CONDITIONS	TYP	MAX	UNITS
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

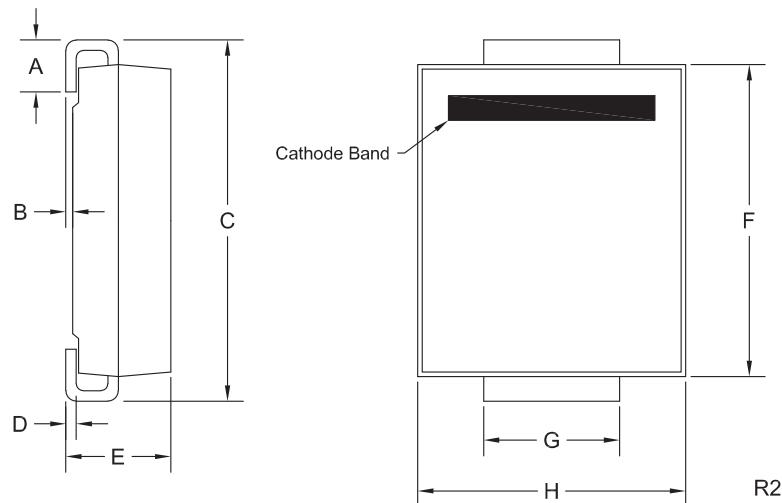
* Upgraded Specification

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Central
semiconductor Corp.™

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)

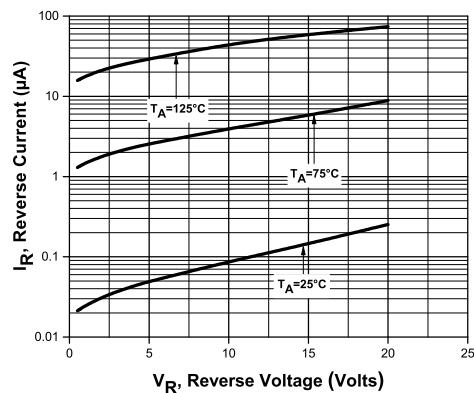
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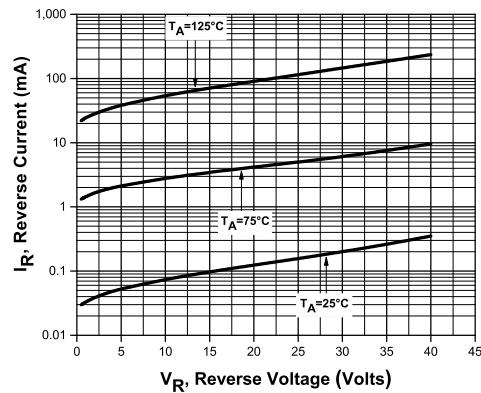


TYPICAL ELECTRICAL CHARACTERISTICS

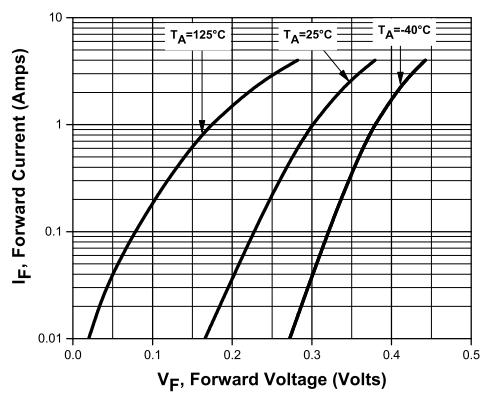
Leakage Current for CMSH3-20L



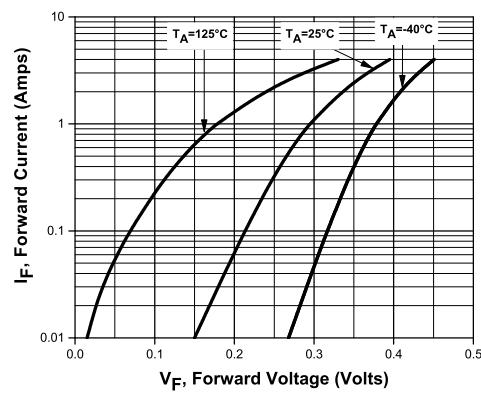
Leakage Current for CMSH3-40L



Forward Voltage for CMSH3-20L



Forward Voltage for CMSH3-40L



R6 (9-February 2016)

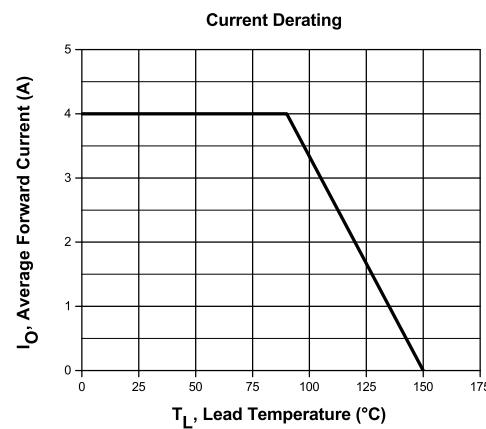
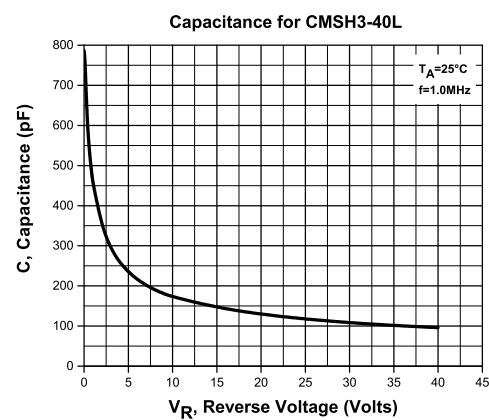
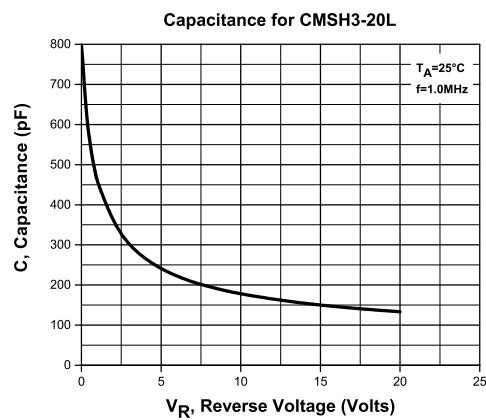
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TYPICAL ELECTRICAL CHARACTERISTICS



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OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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

DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2nd 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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