

CMSH1-20ML  
CMSH1-40ML

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

**Central**  
Semiconductor

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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMSH1-20ML series are surface mount silicon Schottky rectifiers designed for applications where extremely low forward voltage drop is required.

**MARKING CODES:** CMSH1-20ML: CS20ML  
CMSH1-40ML: CS40ML

LOW  
 $V_F$



SMA CASE

**FEATURES:**

- Extremely low forward voltage drop
- High reliability

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

	<b>SYMBOL</b>	<b>CMSH1-20ML</b>	<b>CMSH1-40ML</b>	<b>UNITS</b>
Peak Repetitive Reverse Voltage	$V_{RRM}$	20	40	V
DC Blocking Voltage	$V_R$	20	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	28	V
Average Forward Current	$I_O$		1.0	A
Peak Forward Surge Current, $t_p=8.3\text{ms}$	$I_{FSM}$		30	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	$\Theta_{JL}$		28	$^\circ\text{C/W}$
Thermal Resistance	$\Theta_{JA}$		89	$^\circ\text{C/W}$

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

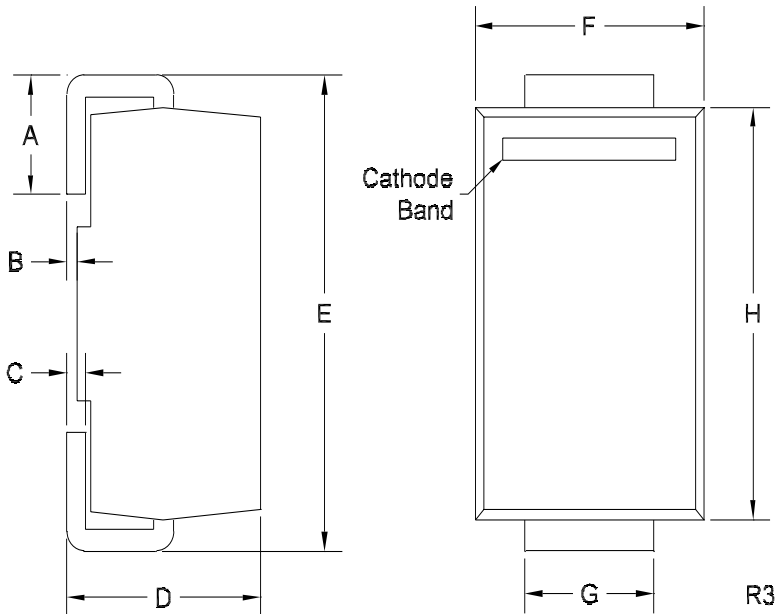
<b>SYMBOL</b>	<b>TEST CONDITIONS</b>	<b>TYP</b>	<b>MAX</b>	<b>UNITS</b>
$I_R$	$V_R=\text{Rated } V_{RRM}$		0.5	mA
$I_R$	$V_R=\text{Rated } V_{RRM}, T_C=100^\circ\text{C}$		20	mA
$V_F$	$I_F=1.0\text{A (CMSH1-20ML)}$	0.35	0.38	V
$V_F$	$I_F=1.0\text{A (CMSH1-40ML)}$	0.37	0.40	V

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SMA CASE - MECHANICAL OUTLINE



DEVICE	MARKING CODE
CMSH1-20ML	CS20ML
CMSH1-40ML	CS40ML

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	0.006	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:R3)

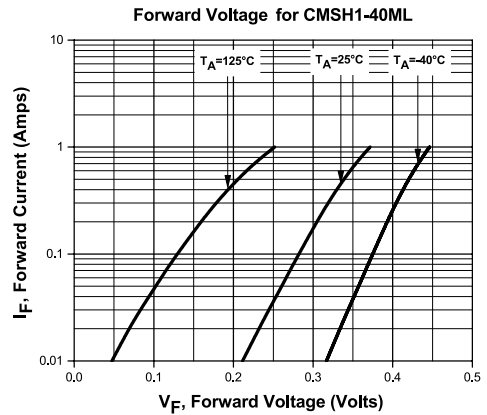
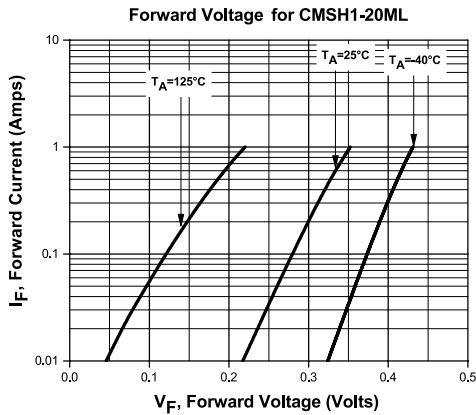
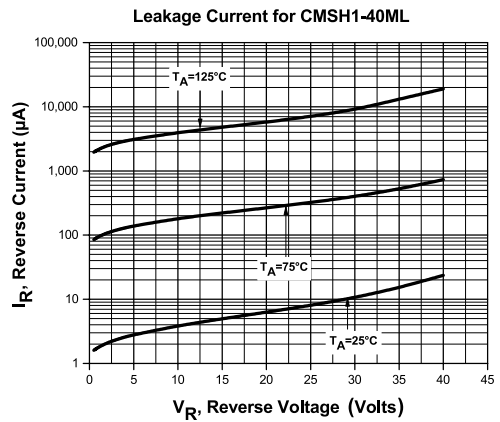
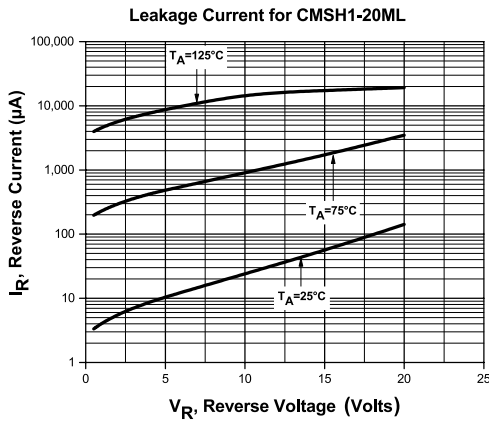
R7 (05-June 2023)

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TYPICAL ELECTRICAL CHARACTERISTICS



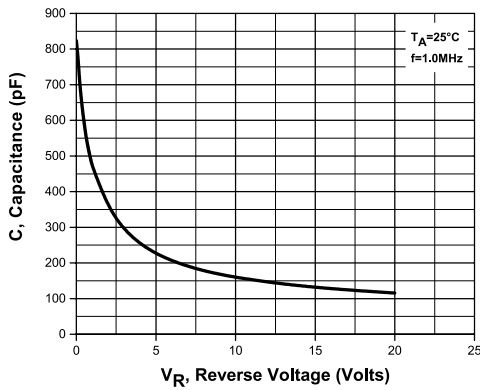
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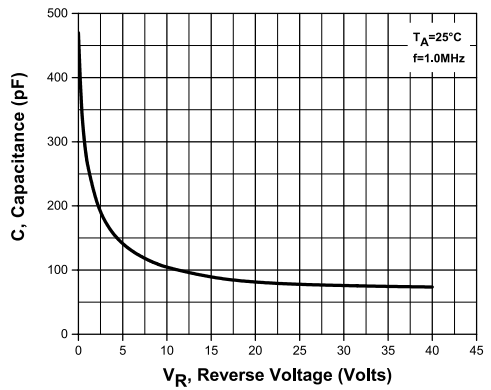


TYPICAL ELECTRICAL CHARACTERISTICS

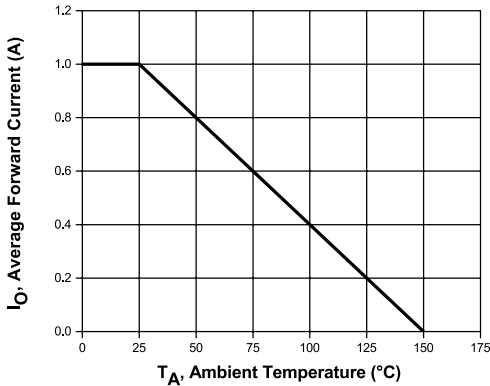
Capacitance for CMSH1-20ML



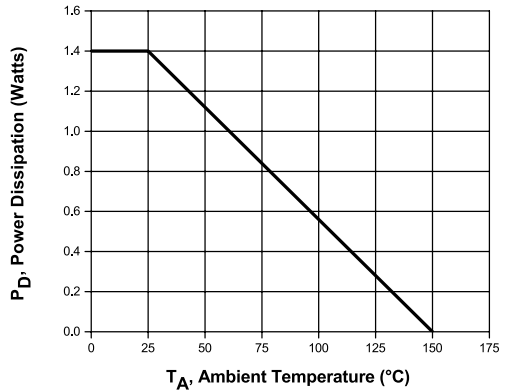
Capacitance for CMSH1-40ML



Current Derating



Power Derating



## 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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