



**THE DATASHEET OF
CMSH3-100MA TR13 PBFREE**



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

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



SMA CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMSH3-20MA series 3.0 Amp surface mount silicon Schottky rectifier is a well constructed, highly reliable component designed for use in all types of commercial, industrial, entertainment, computer, and automotive applications.

MARKING CODE: SEE MARKING CODE TABLE ON FOLLOWING PAGE

FEATURES:

- High current capability
- Flammability classification UL94V-0
- High reliability

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

	SYMBOL	CMSH3 -20MA	CMSH3 -40MA	CMSH3 -60MA	CMSH3 -100MA	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 ($T_L=75^{\circ}\text{C}$)	I_O			3.0		A
Peak Forward Surge Current, $t_p=8.3\text{ms}$	I_{FSM}			80		A
Operating and Storage Junction Temperature	T_J, T_{stg}			-65 to +150		$^{\circ}\text{C}$
Thermal Resistance	θ_{JL}			30		$^{\circ}\text{C/W}$

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

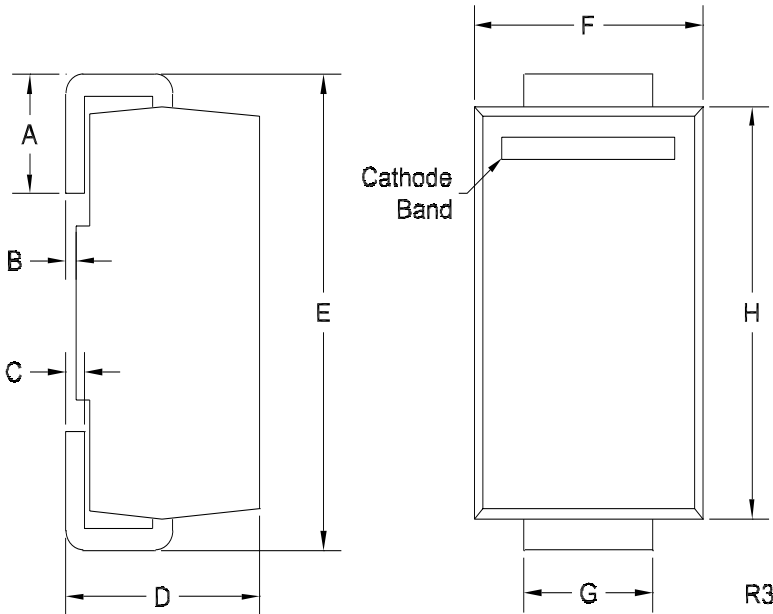
SYMBOL	TEST CONDITIONS	TYP	MAX	UNITS
I_R	$V_R=\text{Rated } V_{RRM}$		500	μA
I_R	$V_R=\text{Rated } V_{RRM}, T_A=100^{\circ}\text{C}$		20	mA
V_F	$I_F=3.0\text{A (CMSH3-20MA)}$	0.46	0.50	V
V_F	$I_F=3.0\text{A (CMSH3-40MA)}$	0.47	0.50	V
V_F	$I_F=3.0\text{A (CMSH3-60MA)}$	0.56	0.70	V
V_F	$I_F=3.0\text{A (CMSH3-100MA)}$	0.76	0.85	V
C_J	$V_R=4.0\text{V}, f=1.0\text{MHz (CMSH3-20MA)}$	174		pF
C_J	$V_R=4.0\text{V}, f=1.0\text{MHz (CMSH3-40MA)}$	160		pF
C_J	$V_R=4.0\text{V}, f=1.0\text{MHz (CMSH3-60MA)}$	121		pF
C_J	$V_R=4.0\text{V}, f=1.0\text{MHz (CMSH3-100MA)}$	83		pF

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SMA CASE - MECHANICAL OUTLINE



DEVICE	MARKING CODE
CMSH3-20MA	CS320MA
CMSH3-40MA	CS340MA
CMSH3-60MA	CS360MA
CMSH3-100MA	CS3100MA

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)

R5 (05-June 2023)

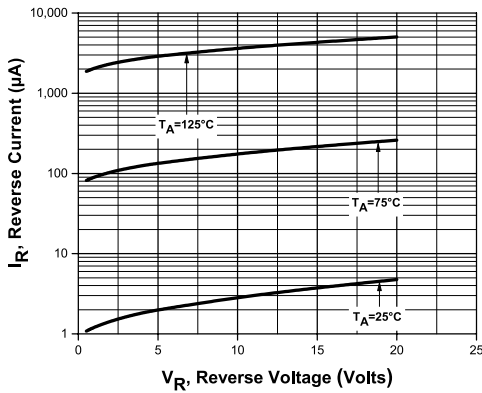
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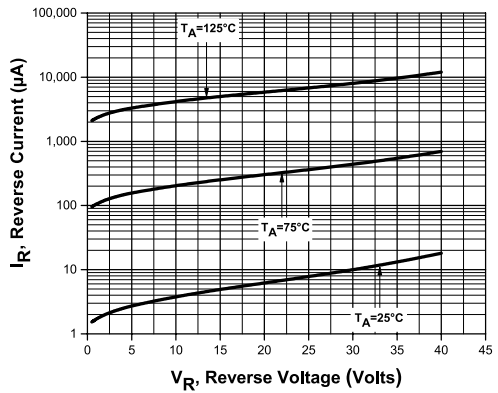


TYPICAL ELECTRICAL CHARACTERISTICS

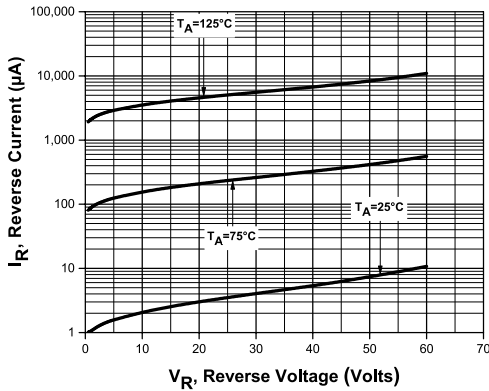
Leakage Current for CMSH3-20MA



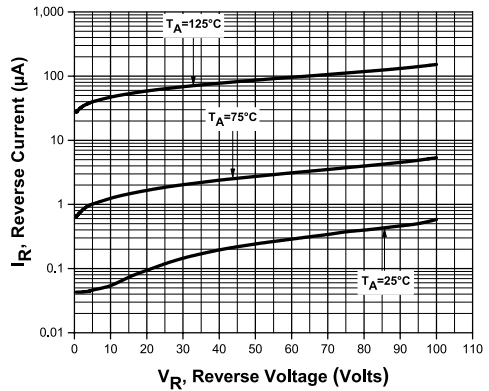
Leakage Current for CMSH3-40MA



Leakage Current for CMSH3-60MA



Leakage Current for CMSH3-100MA



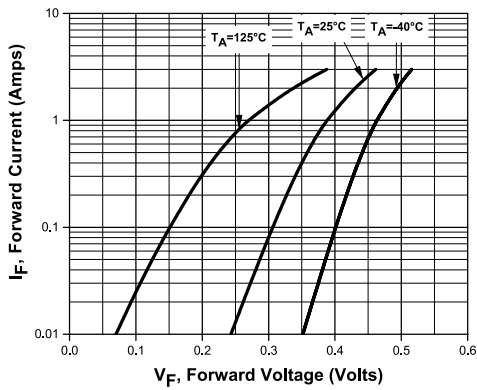
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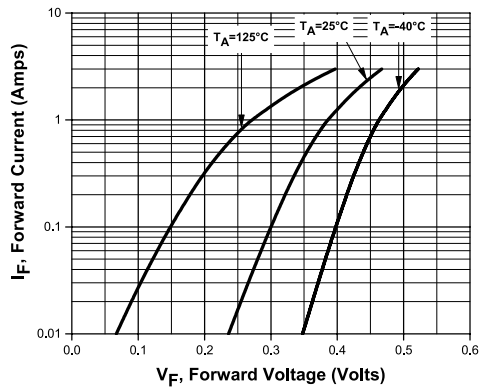
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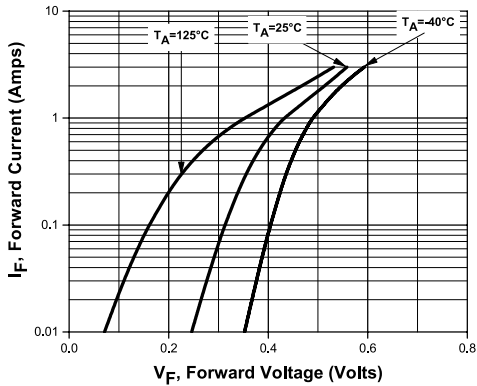
Forward Voltage for CMSH3-20MA



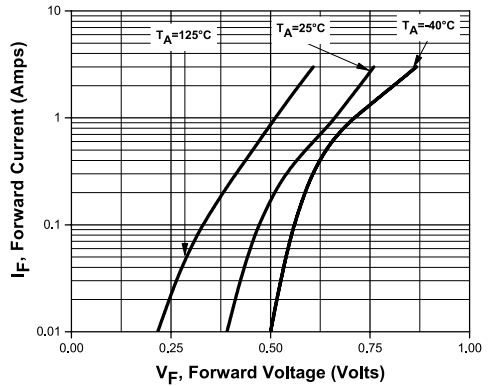
Forward Voltage for CMSH3-40MA



Forward Voltage for CMSH3-60MA



Forward Voltage for CMSH3-100MA



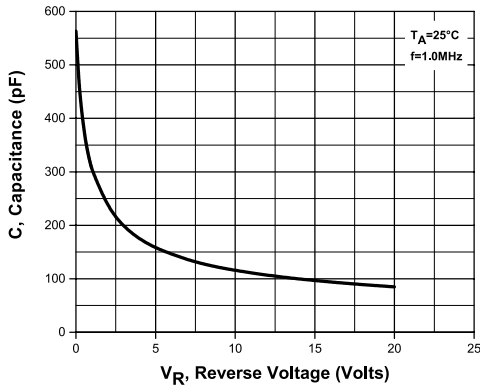
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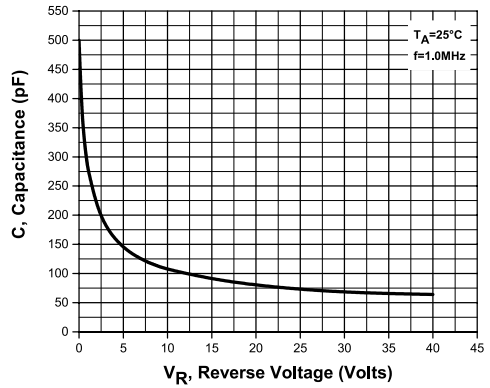
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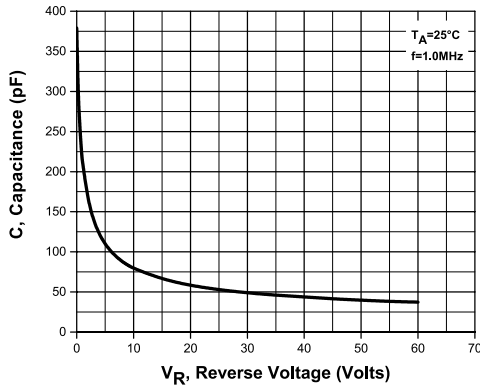
Capacitance for CMSH3-20MA



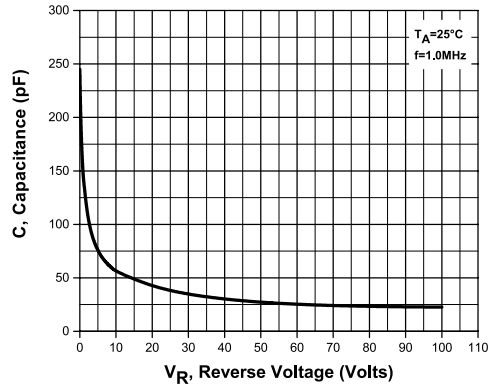
Capacitance for CMSH3-40MA



Capacitance for CMSH3-60MA



Capacitance for CMSH3-100MA

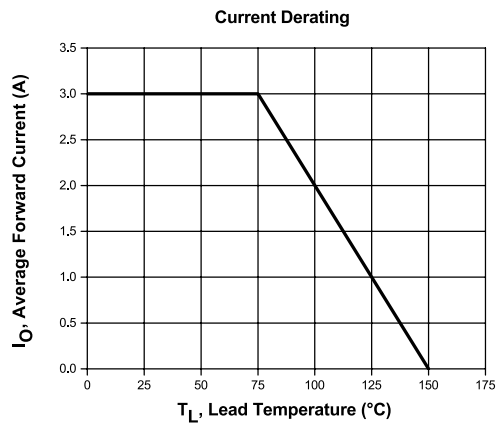


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TYPICAL ELECTRICAL CHARACTERISTICS



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

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).

CONTACT US

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Optimize Your Supply Chain with WIN SOURCE Solutions

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