



# THE DATASHEET OF MBRS240T3



CMSH2-20    CMSH2-60  
 CMSH2-40    CMSH2-100

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



**SMB CASE**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMSH2-20 series 2.0 Amp surface mount silicon rectifier is a 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 reliability
- Special selections available

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

	SYMBOL	CMSH2 -20	CMSH2 -40	CMSH2 -60	CMSH2 -100	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	70	V
Average Forward Current ( $T_A=55^\circ\text{C}$ )	$I_O$			2.0		A
Peak Forward Surge Current, $t_p=8.3\text{ms}$	$I_{FSM}$			50		A
Operating and Storage Junction Temperature	$T_J, T_{stg}$			-65 to +150		$^\circ\text{C}$
Thermal Resistance	$\theta_{JL}$			20		$^\circ\text{C/W}$

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

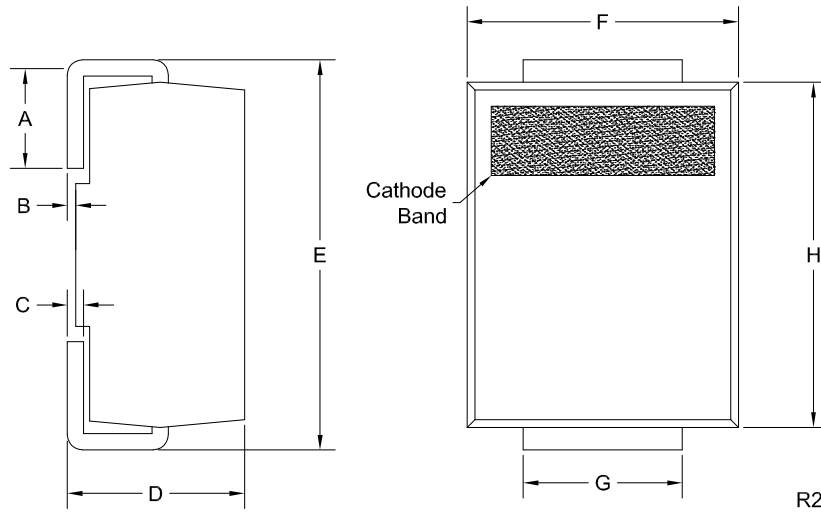
SYMBOL	TEST CONDITIONS	TYP	MAX	UNITS
$I_R$	$V_R=\text{Rated } V_{RRM}$		0.50	mA
$I_R$	$V_R=\text{Rated } V_{RRM}, T_A=100^\circ\text{C}$		20	mA
$V_F$	$I_F=2.0\text{A (CMSH2-20)}$	0.40	0.50	V
$V_F$	$I_F=2.0\text{A (CMSH2-40)}$	0.48	0.50	V
$V_F$	$I_F=2.0\text{A (CMSH2-60)}$	0.56	0.70	V
$V_F$	$I_F=2.0\text{A (CMSH2-100)}$	0.76	0.85	V
$C_J$	$V_R=4.0\text{V}, f=1.0\text{MHz, (CMSH2-20)}$	236		pF
$C_J$	$V_R=4.0\text{V}, f=1.0\text{MHz, (CMSH2-40)}$	101		pF
$C_J$	$V_R=4.0\text{V}, f=1.0\text{MHz, (CMSH2-60)}$	84		pF
$C_J$	$V_R=4.0\text{V}, f=1.0\text{MHz, (CMSH2-100)}$	76		pF

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**SMB CASE - MECHANICAL OUTLINE**



DEVICE	MARKING CODE
CMSH2-20	CS220
CMSH2-40	CS240
CMSH2-60	CS260
CMSH2-100	CS2100

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.030	0.060	0.76	1.52
B	0.000	0.008	0.00	0.20
C	0.006	0.012	0.15	0.30
D	0.086	0.096	2.18	2.44
E	0.200	0.220	5.08	5.59
F	0.130	0.150	3.30	3.81
G	0.077	0.083	1.96	2.11
H	0.160	0.191	4.06	4.85

SMB (REV: R2)

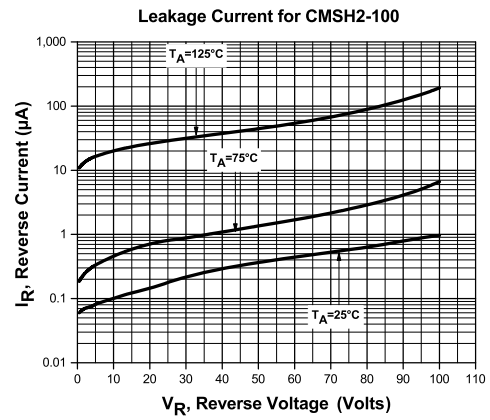
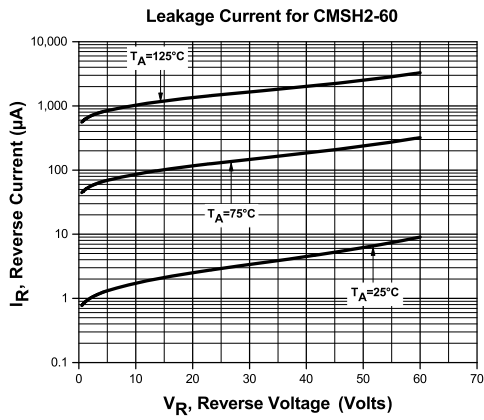
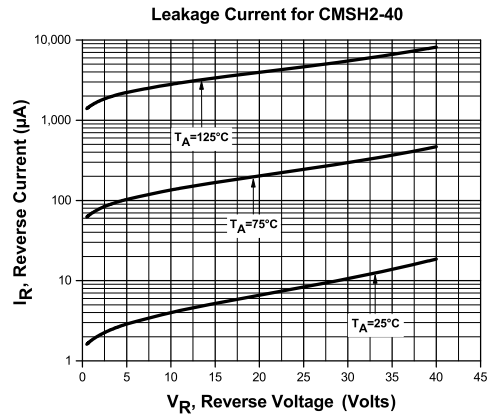
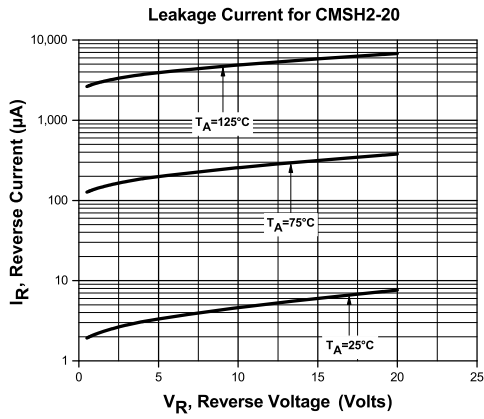
R6 (6-September 2018)

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TYPICAL ELECTRICAL CHARACTERISTICS



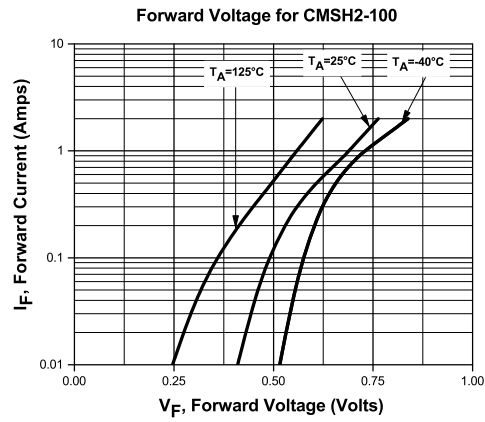
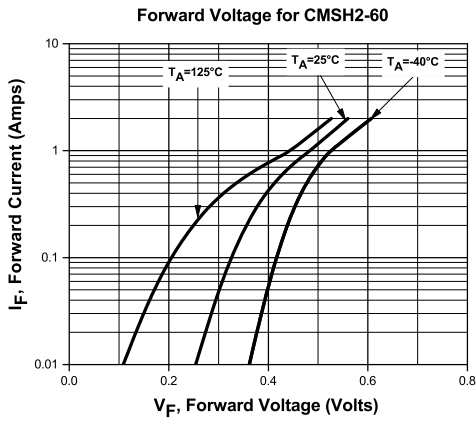
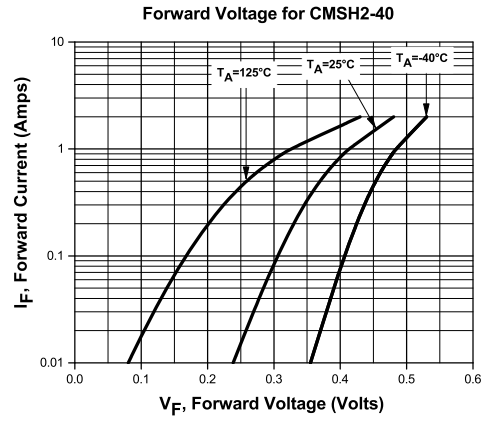
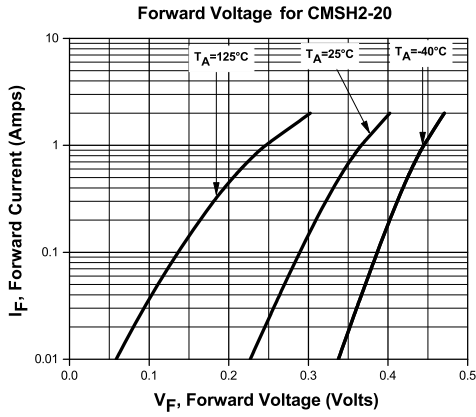
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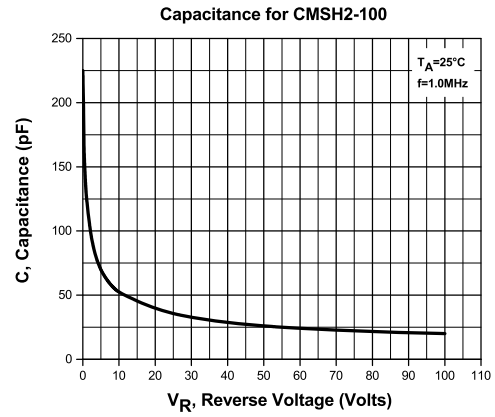
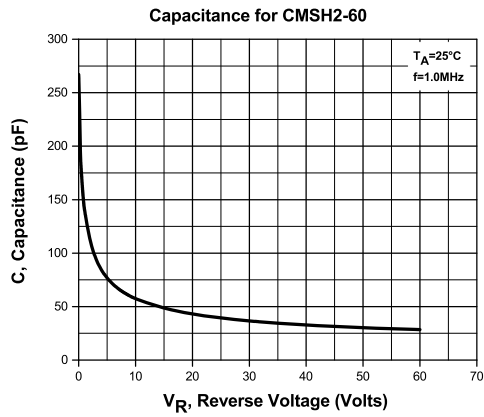
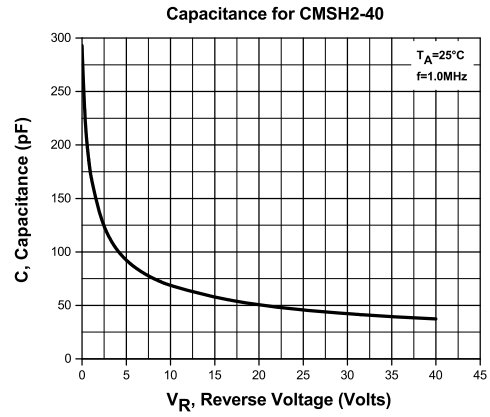
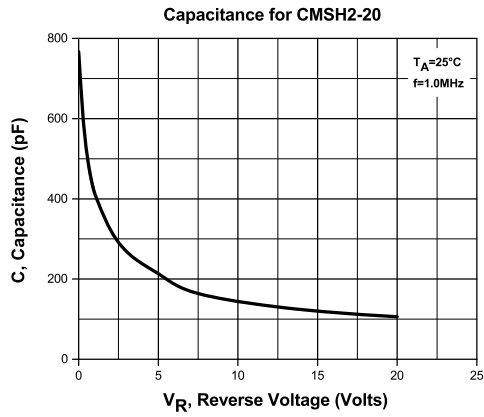
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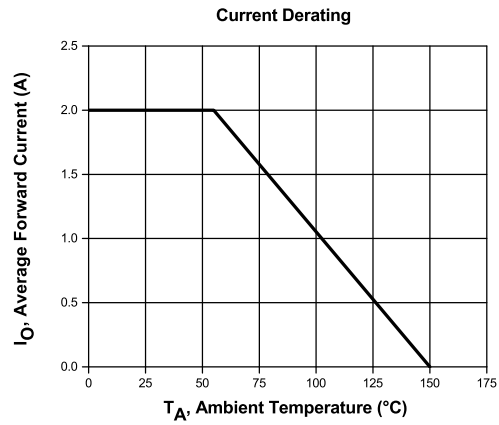
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## TYPICAL ELECTRICAL CHARACTERISTICS



R6 (6-September 2018)

## 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

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Hauppauge, NY 11788 USA  
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-  Shortage Management
-  Alternative Solution
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