



**THE DATASHEET OF
CMSH3-200MFL TR13 PBFREE**



CMSH3-100MFL
 CMSH3-150MFL
 CMSH3-200MFL

**SURFACE MOUNT SILICON
 SCHOTTKY RECTIFIERS
 3.0 AMP, 100 THRU 200 VOLT**



SMAFL CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMSH3-100MFL, CMSH3-150MFL and CMSH3-200MFL are extremely efficient, high voltage, silicon Schottky rectifiers with low total conduction losses and packaged in the low profile SMAFL surface mount case. The SMAFL fits on the existing industry standard SMA mounting pad layouts.

MARKING CODE: SEE MARKING CODE TABLE ON FOLLOWING PAGE

FEATURES:

- High current capability (3.0A)
- Low leakage current
- Low forward voltage
- Low package profile (1.0mm)
- Flammability classification UL94V-0

APPLICATIONS:

- Reverse polarity protection
- Voltage clamping
- DC-DC output rectification
- Power management

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

	SYMBOL	CMSH3 -100MFL	CMSH3 -150MFL	CMSH3 -200MFL	UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	100	150	200	V
DC Blocking Voltage	V_R	100	150	200	V
RMS Reverse Voltage	$V_{R(RMS)}$	70	105	140	V
Average Forward Current ($T_L=110^{\circ}\text{C}$)	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}		20		$^{\circ}\text{C/W}$

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

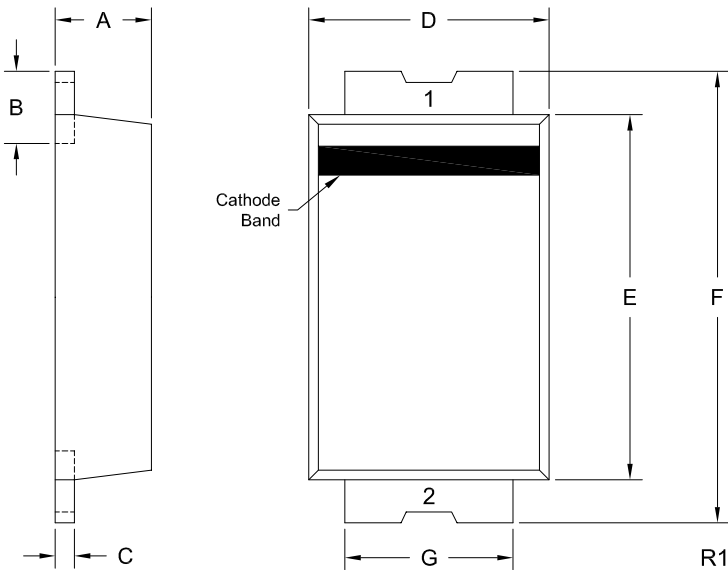
SYMBOL	TEST CONDITIONS	TYP	MAX	UNITS
I_R	$V_R=\text{Rated } V_{RRM}$		50	μA
V_F	$I_F=3.0\text{A}$ (CMSH3-100MFL)	0.76	0.80	V
V_F	$I_F=3.0\text{A}$ (CMSH3-150MFL)	0.81	0.90	V
V_F	$I_F=3.0\text{A}$ (CMSH3-200MFL)	0.85	0.90	V
C_J	$V_R=4.0\text{V}$, $f=1.0\text{MHz}$ (CMSH3-100MFL)	110		pF
C_J	$V_R=4.0\text{V}$, $f=1.0\text{MHz}$ (CMSH3-150MFL)	90		pF
C_J	$V_R=4.0\text{V}$, $f=1.0\text{MHz}$ (CMSH3-200MFL)	70		pF

CMSH3-100MFL
 CMSH3-150MFL
 CMSH3-200MFL

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SMAFL CASE - MECHANICAL OUTLINE



DEVICE	MARKING CODE
CMSH3-100MFL	CS310MFL
CMSH3-150MFL	CS315MFL
CMSH3-200MFL	CS320MFL

SYMBOL	DIMENSIONS		DIMENSIONS	
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.035	0.044	0.90	1.10
B	0.021	0.038	0.55	0.95
C	0.006	0.010	0.15	0.25
D	0.094	0.103	2.40	2.60
E	0.145	0.154	3.70	3.90
F	0.177	0.193	4.50	4.90
G	0.065	0.073	1.65	1.85

SMAFL (REV: R1)

LEAD CODE:

- 1) Cathode
- 2) Anode

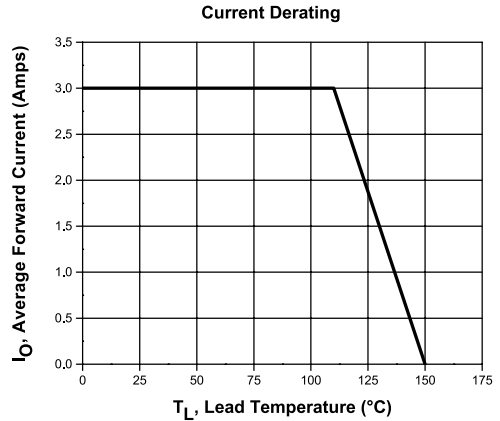
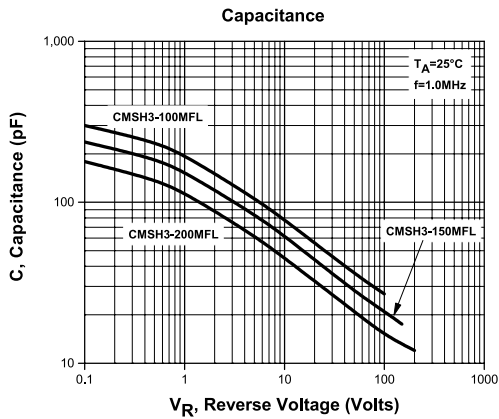
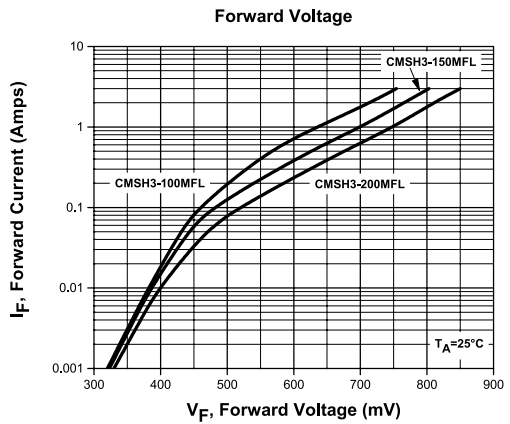
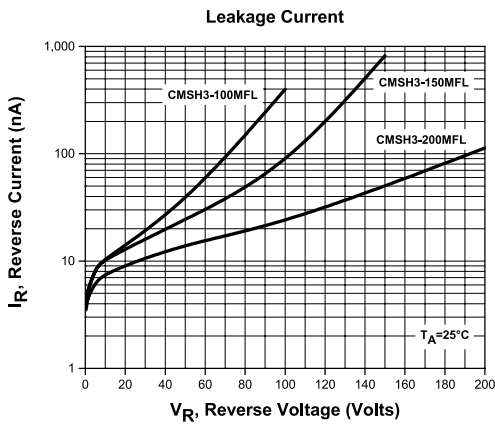
R4 (26-May 2022)

CM SH3-100MFL
 CM SH3-150MFL
 CM SH3-200MFL

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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.

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- 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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