

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)

	CMSH3	CMSH3	CMSH3		
	SYMBOL	-100MFL	-150MFL	-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)

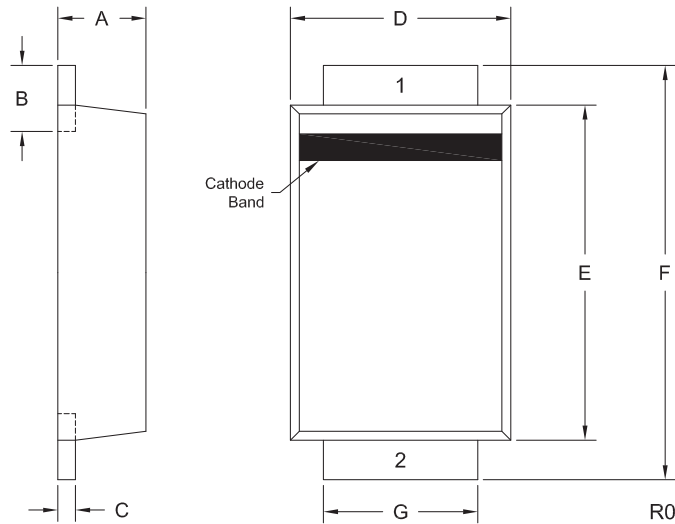
SYMBOL	TEST CONDITIONS	TYP	MAX	UNITS
I_R	$V_R=\text{Rated } V_{RRM}$		50	μA
I_R	$V_R=\text{Rated } V_{RRM}, T_A=100^\circ\text{C}$		20	mA
V_F	$I_F=3.0\text{A}$ (CMSH3-100MFL)	0.76	0.80	V
V_F	$I_F=3.0\text{A}$ (CMSH3-150MFL)	0.81	0.90	V
V_F	$I_F=3.0\text{A}$ (CMSH3-200MFL)	0.85	0.90	V
C_J	$V_R=4.0\text{V}, f=1.0\text{MHz}$ (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

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SMAFL CASE - MECHANICAL OUTLINE



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

SYMBOL	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: R0)

LEAD CODE:

- 1) Cathode
- 2) Anode

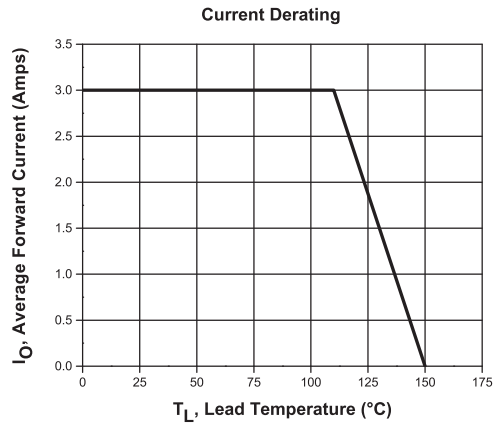
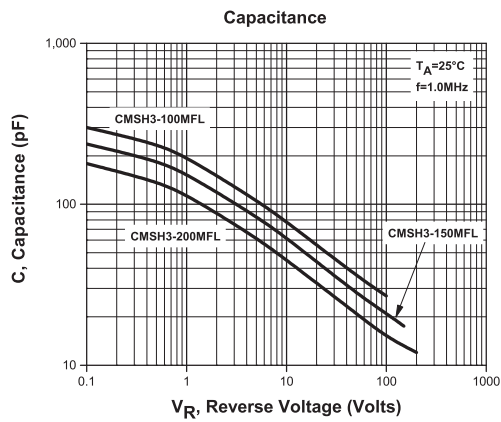
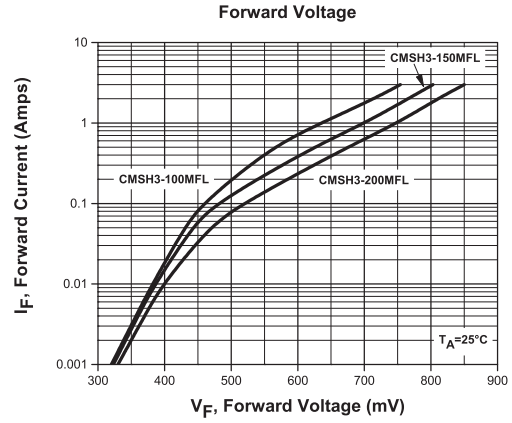
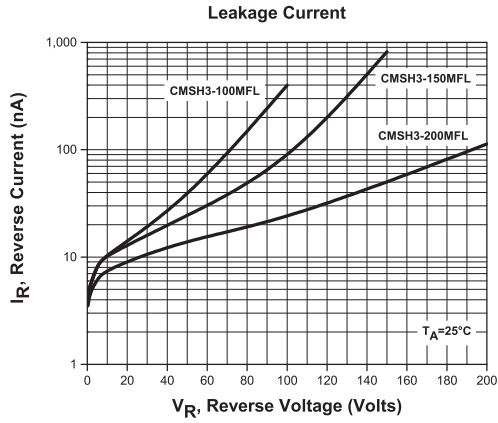
R2 (22-February 2013)

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TYPICAL ELECTRICAL CHARACTERISTICS



R2 (22-February 2013)