

CMSH3-40FLE

SURFACE MOUNT SILICON
SCHOTTKY RECTIFIER
3.0 AMP, 40 VOLT



SMBFL CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMSH3-40FLE is an extremely efficient silicon Schottky rectifier with low total conduction losses packaged in the low profile SMBFL case. The SMBFL fits on existing industry standard SMB mounting pad layouts.

MARKING CODE: CS340E

APPLICATIONS:

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

FEATURES:

- High current capability (3.0A)
- Low leakage current (30 μ A TYP @ 40V)
- Low forward voltage (0.40V TYP @ 2.0A)
- Low package profile (1.0mm)
- Flammability classification UL94V-0

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

	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	40	V
DC Blocking Voltage	V_R	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	28	V
Average Forward Current ($T_L=125^{\circ}\text{C}$)	I_O	3.0	A
Peak Forward Surge Current, $t_p=8.3\text{ms}$	I_{FSM}	100	A
Operating and Storage Junction Temperature	T_J, T_{stg}	-55 to +150	$^{\circ}\text{C}$
Thermal Resistance	θ_{JL}	17	$^{\circ}\text{C/W}$

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

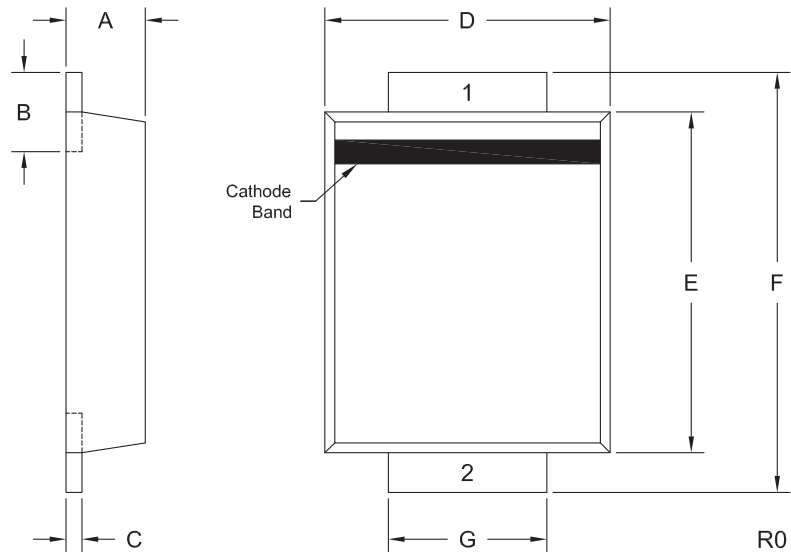
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=40\text{V}$		30	100	μA
I_R	$V_R=40\text{V}, T_J=125^{\circ}\text{C}$		16		mA
BV_R	$I_R=0.5\text{mA}$	40	57		V
V_F	$I_F=1.0\text{A}$		0.37		V
V_F	$I_F=1.0\text{A}, T_J=125^{\circ}\text{C}$		0.24		V
V_F	$I_F=2.0\text{A}$		0.40		V
V_F	$I_F=2.0\text{A}, T_J=125^{\circ}\text{C}$		0.30		V
V_F	$I_F=3.0\text{A}$		0.43	0.46	V
V_F	$I_F=3.0\text{A}, T_J=125^{\circ}\text{C}$		0.34		V
C_J	$V_R=4.0\text{V}, f=1.0\text{MHz}$		235		pF

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SMBFL CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Cathode
- 2) Anode

MARKING CODE: CS340

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.035	0.044	0.90	1.10
B	0.031	0.048	0.80	1.20
C	0.006	0.010	0.15	0.25
D	0.137	0.146	3.50	3.70
E	0.161	0.178	4.10	4.50
F	0.200	0.217	5.10	5.50
G	0.074	0.083	1.90	2.10

SMBFL (REV: R0)

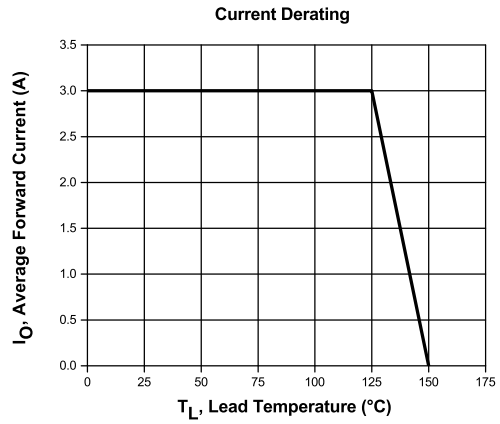
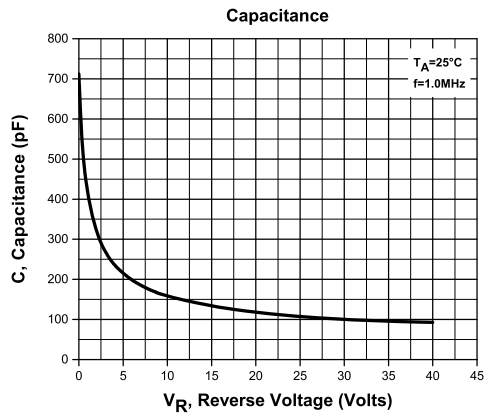
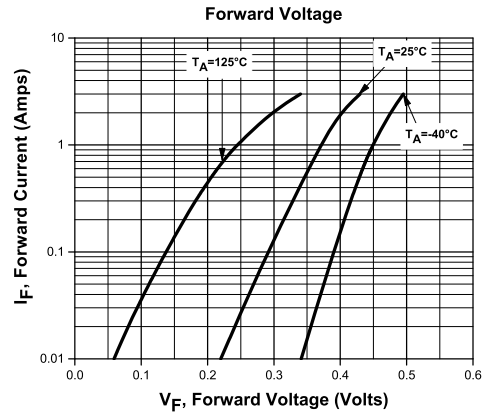
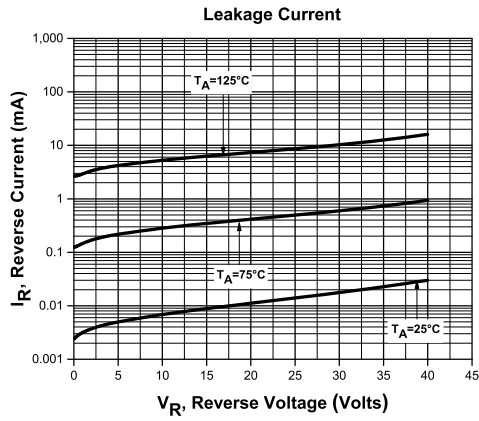
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TYPICAL ELECTRICAL CHARACTERISTICS



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