

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

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

APPLICATIONS:

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

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

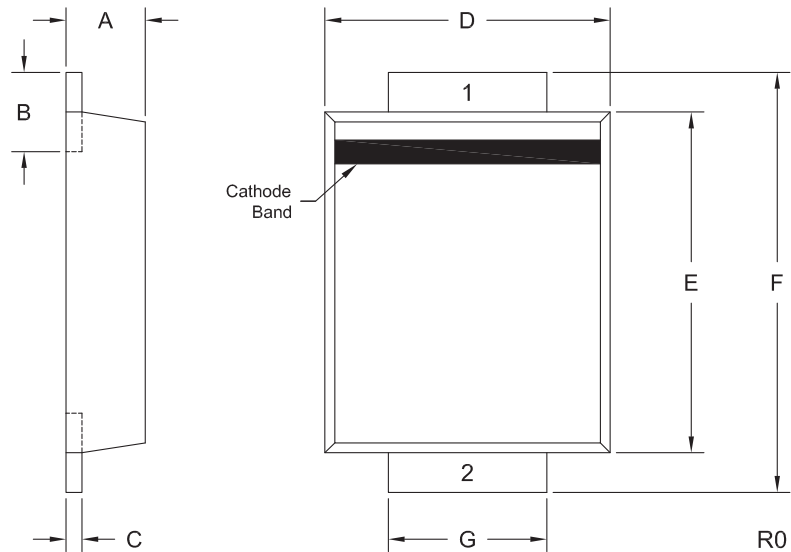
R1 (7-June 2016)

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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)

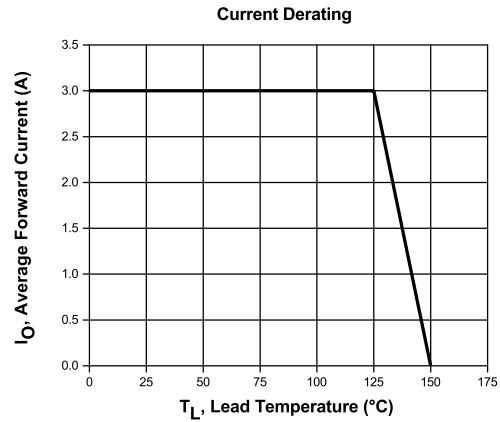
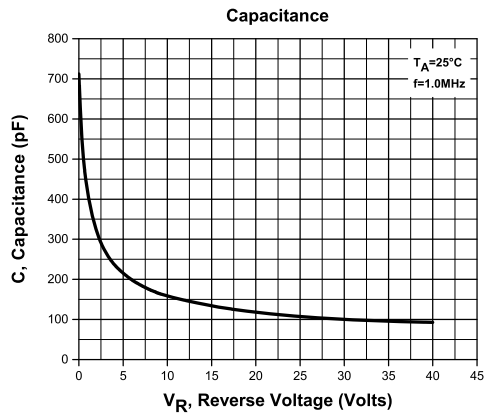
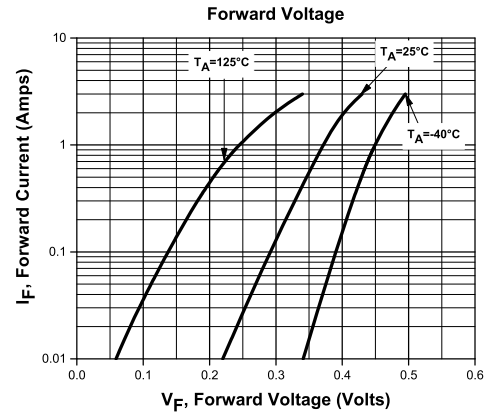
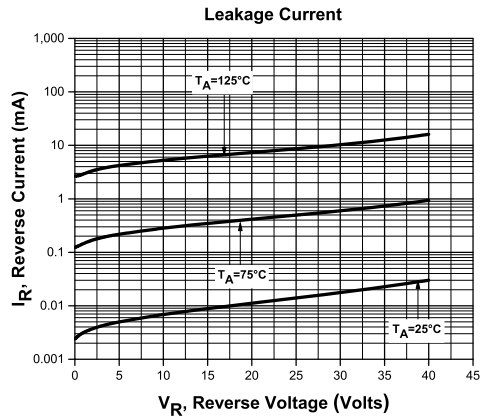
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TYPICAL ELECTRICAL CHARACTERISTICS



R1 (7-June 2016)

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

Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, NY 11788 USA
Main Tel: (631) 435-1110
Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centrasemi.com

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
www.centrasemi.com/wwdistributors

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