

CMSH3-40FL

**SURFACE MOUNT SILICON  
SCHOTTKY RECTIFIER  
3.0 AMP, 40 VOLT**



**SMBFL CASE**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMSH3-40FL 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: CS340FL**

**FEATURES:**

- High current capability (3.0A)
- Low leakage current (100 $\mu$ A MAX @ 40V)
- Low forward voltage (0.5V MAX @ 3.0A)
- 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)

|   | <b>SYMBOL</b>  |             | <b>UNITS</b>       |
|---|----------------|-------------|--------------------|
| 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, $t_p=8.3\text{ms}$      | $I_{FSM}$      | 80          | A                  |
| Operating and Storage Junction Temperature          | $T_J, T_{stg}$ | -65 to +150 | $^\circ\text{C}$   |
| Thermal Resistance                                  | $\theta_{JL}$  | 15          | $^\circ\text{C/W}$ |

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

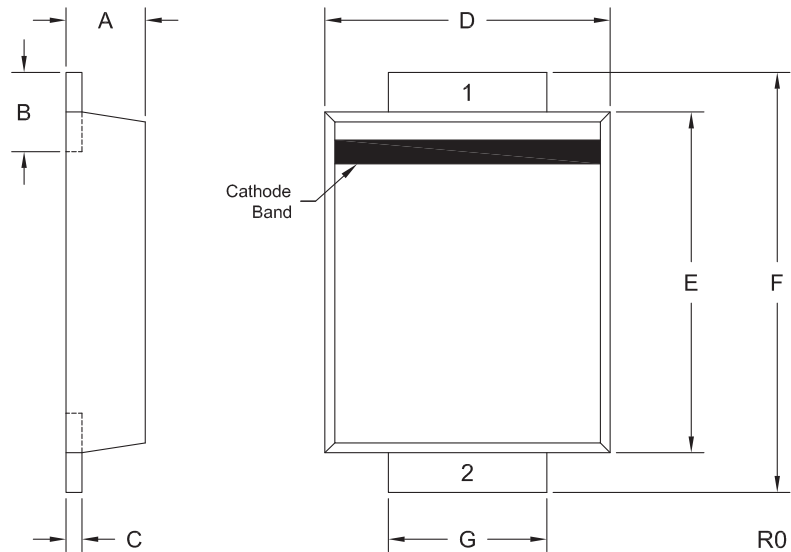
| <b>SYMBOL</b> | <b>TEST CONDITIONS</b>             | <b>TYP</b> | <b>MAX</b> | <b>UNITS</b>  |
|---------------|------------------------------------|------------|------------|---------------|
| $I_R$         | $V_R=40\text{V}$                   | 13         | 100        | $\mu\text{A}$ |
| $V_F$         | $I_F=3.0\text{A}$                  | 0.48       | 0.50       | V             |
| $C_J$         | $V_R=4.0\text{V}, f=1.0\text{MHz}$ | 150        |            | pF            |

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**SMBFL CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

- 1) Cathode
- 2) Anode

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| <b>DIMENSIONS</b> |        |       |             |      |
|-------------------|--------|-------|-------------|------|
| 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)

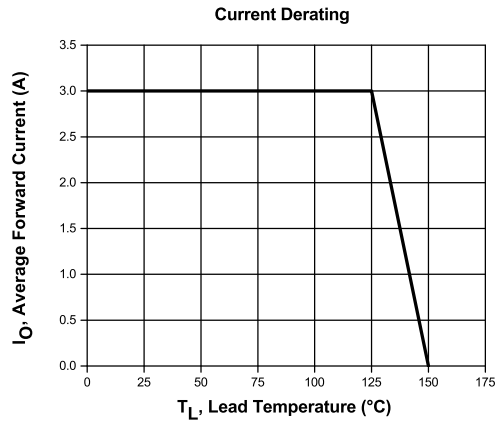
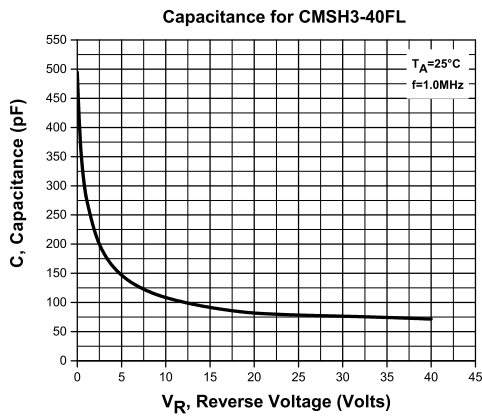
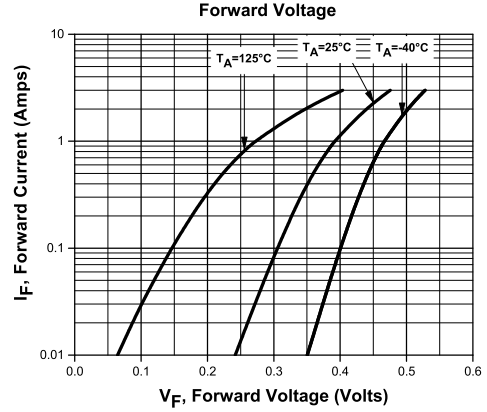
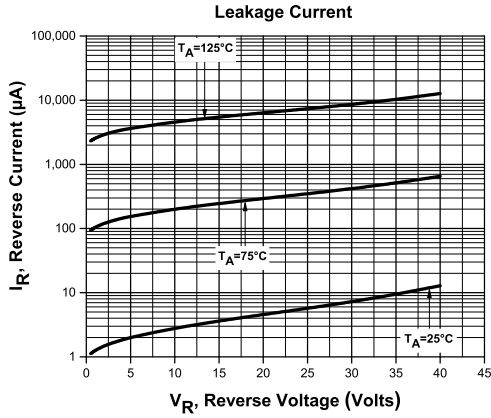
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TYPICAL ELECTRICAL CHARACTERISTICS



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## 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

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