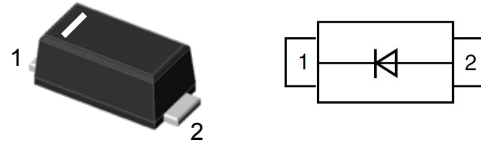


## Schottky Barrier Rectifier in SOD-123FL

### Features

- Schottky barrier diodes
- Low forward voltage drop
- High Junction Temperature
- Moisture sensitivity: level 1, per J-STD-020



### Mechanical Data

- **Case:** SOD-123FL (plastic package).  
Lead free; RoHS compliant; Halogen free
- **Molding Compound Flammability Rating:**  
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:  
260 °C/10 sec. at terminals

### Applications

For use of fast switching in RF module, Lighting, cellular phone, portable device, power supplies and other consumer applications.

### Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

Parameter	Symbol	SS32FL	SS33FL	SS34FL	SS36FL	SS310FL	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	60	100	V
Maximum RMS voltage	$V_{RMS}$	14	21	28	42	70	V
Maximum DC blocking voltage	$V_{DC}$	20	30	40	60	100	V
Maximum average forward rectified current	$I_{F(AV)}$	3.0					A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	$I_{FSM}$	70					A
Operating junction and storage temperature range	$T_J, T_{STG}$	- 55 to + 150					°C

### Electrical Characteristics

( $T_A = 25\text{ °C}$  unless otherwise specified)

Parameter	Test Conditions	Symbol	SS32FL	SS33FL	SS34FL	SS36FL	SS310FL	Unit
Maximum instantaneous forward voltage	$I_F=3A, T_A=25\text{ °C}$	$V_F$	0.55			0.70	0.85	V
Maximum DC reverse current at rated DC blocking voltage	$T_A=25\text{ °C}$	$I_R$	0.5				0.05	mA
	$T_A=125\text{ °C}$		50				10	
Typical junction capacitance	4.0 V, 1 MHz	$C_J$	110			80		pF

Note1: Thermal resistance from junction to lead, mounted on PCB with 5.0×5.0mm copper pads

**Typical Characteristics** ( $T_{amb} = 25\text{ }^{\circ}\text{C}$  unless otherwise specified)

Figure 1. Forward Current Derating Curve

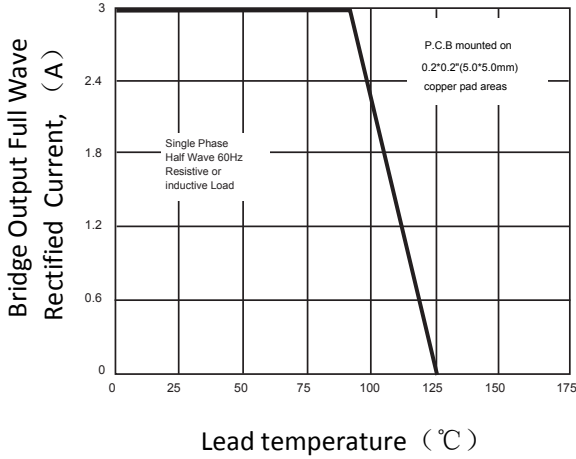


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

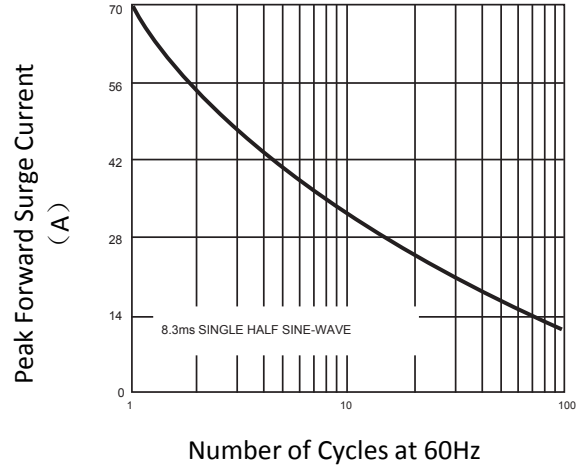


Figure 3. Typical Instantaneous Forward Characteristics

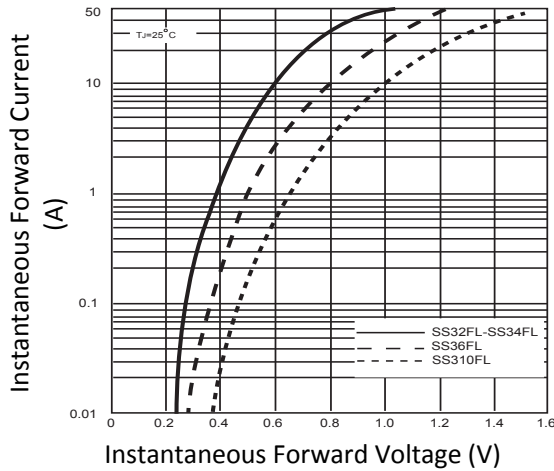


Figure 4. Typical Reverse Characteristics

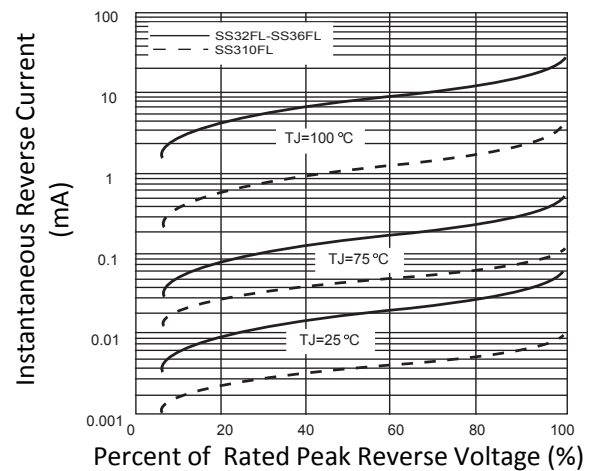
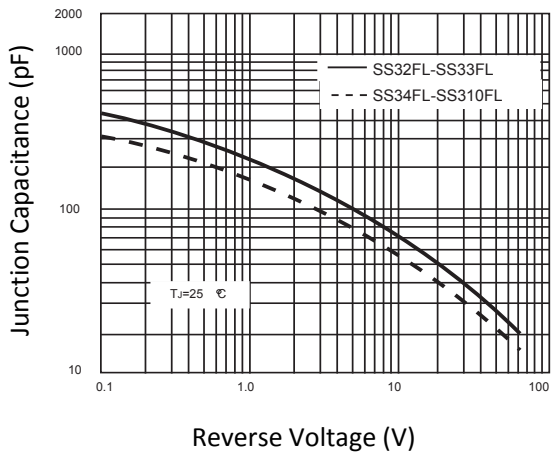
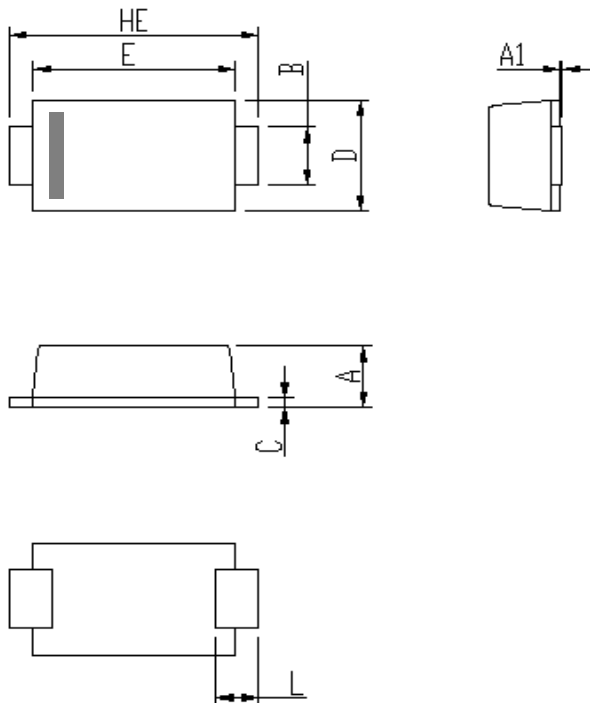


Figure 5. Typical Junction Capacitance

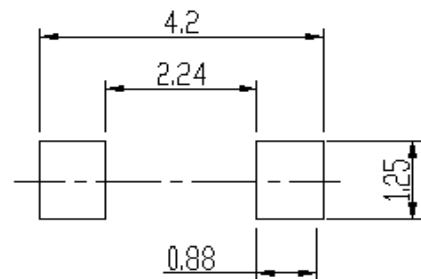


## Package Dimensions

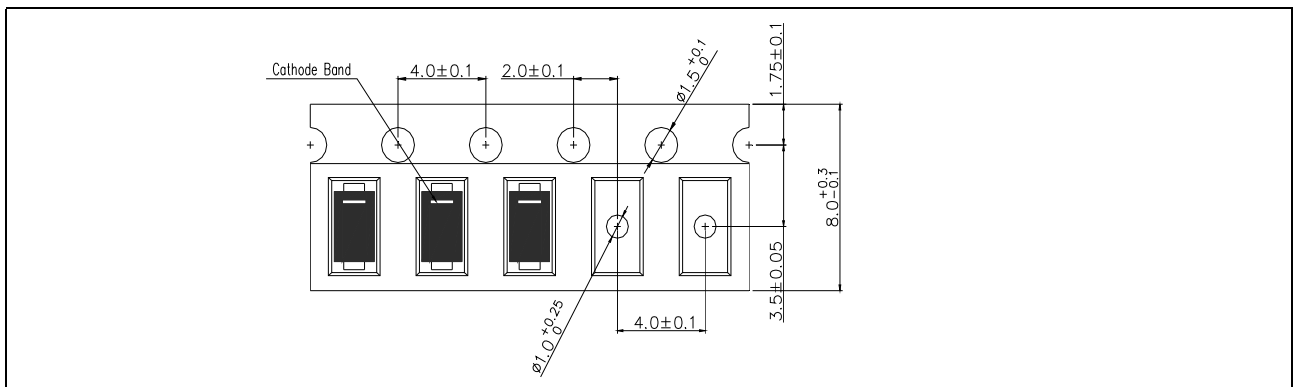


DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
A	0.9	1.4	0.035	0.055
A1	0	0.1	0.000	0.004
B	0.85	1.05	0.033	0.041
C	0.1	0.25	0.004	0.010
D	1.6	2.0	0.067	0.079
E	2.6	3.1	0.103	0.122
L	0.43	0.83	0.017	0.033
HE	3.5	3.9	0.138	0.154

Soldering footprint Unit: mm



## Package Information



## Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
SS32FL Thur SS310FL	SOD-123FL	Tape and reel	3000pcs / reel	EIA STD RS-481

## Revision history

Date	Revision	Changes
23-May-2012	1.0	Initial release
19-Nov.-2018	2.0	Update
26-Nov.-2018	3.0	Add 75 °C IR curve & Package Information

## **CAUTION / WARNING**

Information in this document is believed to be accurate and reliable. However, CREATEK does not give any representations or warranties, expressed or implied, as to the accuracy or completeness of such information and shall have no liability for the consequences of use of such information.

Users should independently evaluate the suitability of and test each product selected for their own applications, and CREATEK assumes no liability whatsoever relating to the choice, selection or use of the CREATEK products and services described herein.

CREATEK reserves the right to change or update, without notice, any information contained in this publication; to change, without notice, the design, construction, processing, or specification of any product; and to discontinue or limit production or distribution of any product.

Information in this document supersedes and replaces all information previously supplied.

Products are not designed, authorized or warranted to be suitable for use in medical, military, aircraft, space or life support equipment, nor in applications where failure or malfunction of an CREATEK product can reasonably be expected to result in personal injury, death or severe property or environmental damage. CREATEK accepts no liability for inclusion and/or use of CREATEK products in such equipment or applications and therefore such inclusion and/or use is at the customer's own risk.

This document as well as the item(s) described herein may be subject to export control regulations. Export might require a prior authorization from national authorities.


Resale of CREATEK products with provisions different from the statements and/or technical features set forth in this document shall immediately void any warranty granted by CREATEK for the CREATEK product or service described herein and shall not create or extend in any manner whatsoever, any liability of CREATEK.

CREATEK expressly disclaims all implied warranties regarding the information contained herein, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose. CREATEK only obligations are those in the CREATEK Standard Terms and Conditions of Sale and in no case will CREATEK be liable for any incidental, indirect, or consequential damages arising from the sale, resale, use, or misuse of its products.

---

Specifications are subject to change without notice

© Copyright 2009, CREATEK Microelectronics

 **CREATEK**® is a registered trademark of CREATEK Microelectronics

All rights reserved