

## Surface Mount General-purpose Rectifiers in SOD-123FL

### Features

- Low reverse leakage
- High forward surge capability
- High reliability



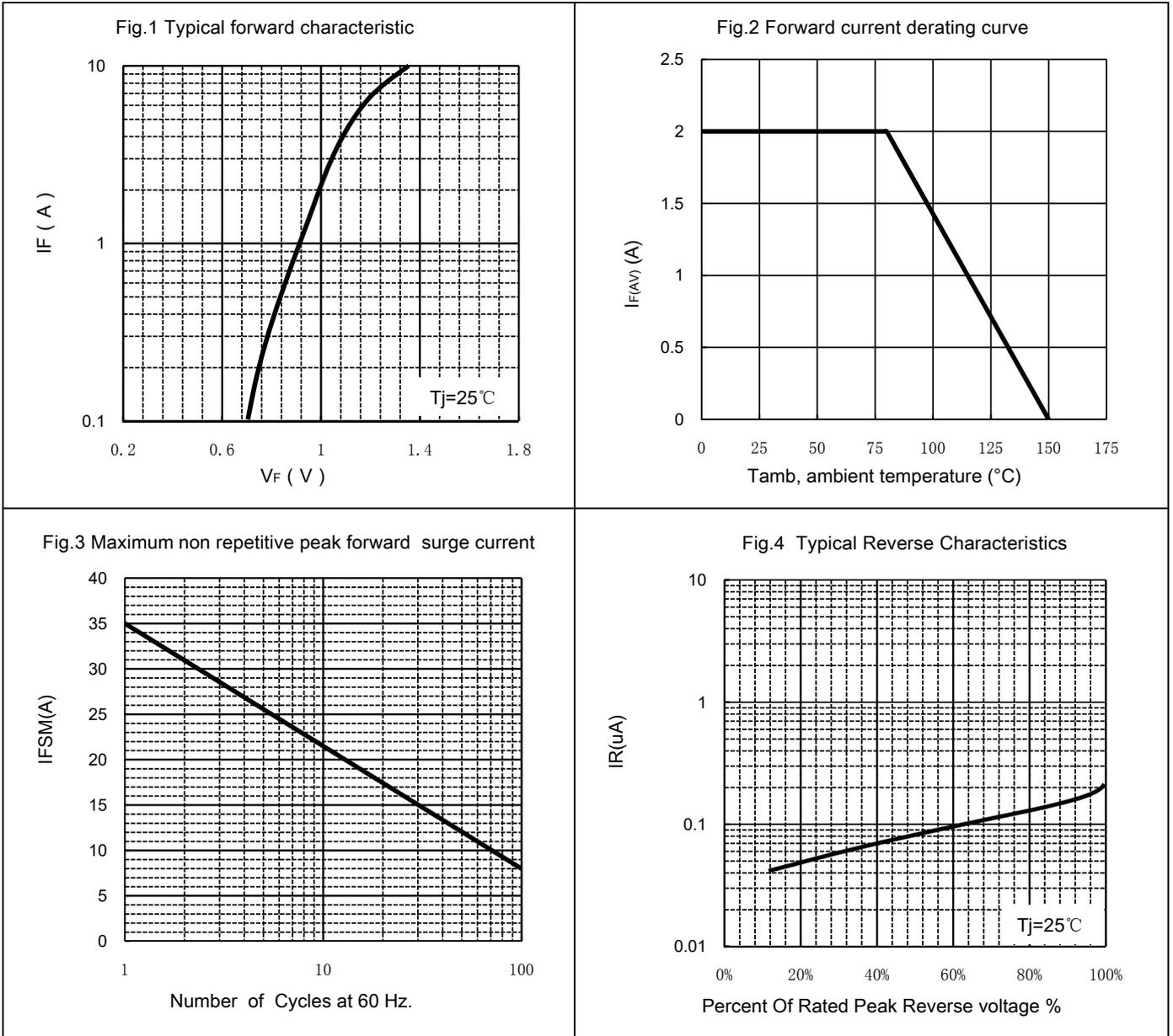
### Mechanical Data

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

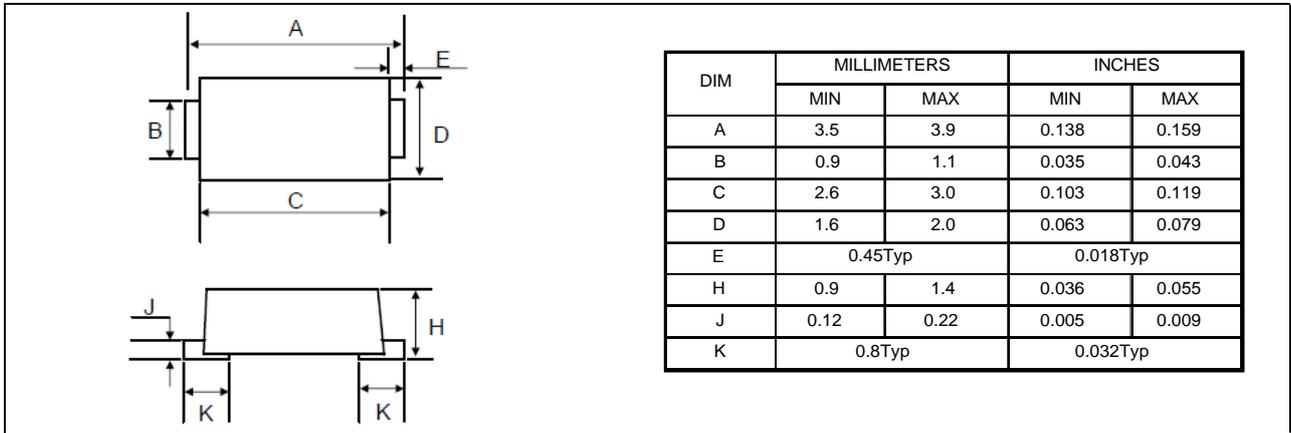
Maximum Ratings And Electrical Characteristics									
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.									
Parameter	Symbols	CS2AL	CS2BL	CS2DL	CS2GL	CS2JL	CS2KL	CS2ML	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	$I_{F(AV)}$	2.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	35.0							A
Maximum instantaneous forward voltage @ 2.0A DC	$V_F$	1.1							V
Maximum DC reverse current @ $T_J = 25^\circ\text{C}$ at rated DC blocking voltage @ $T_J = 125^\circ\text{C}$	$I_R$	5.0 100.0							uA
Typical junction capacitance (Note 3)	$C_J$	40							pF
Typical thermal resistance (Note 4)	$R_{\theta JA}$	180							°C/W
Operating junction temperature range	$T_J$	-55 to +150							°C
Storage temperature range	$T_{STG}$	-55 to +150							°C

Notes: 1. Thermal resistance from junction to ambient, PCB mounted.

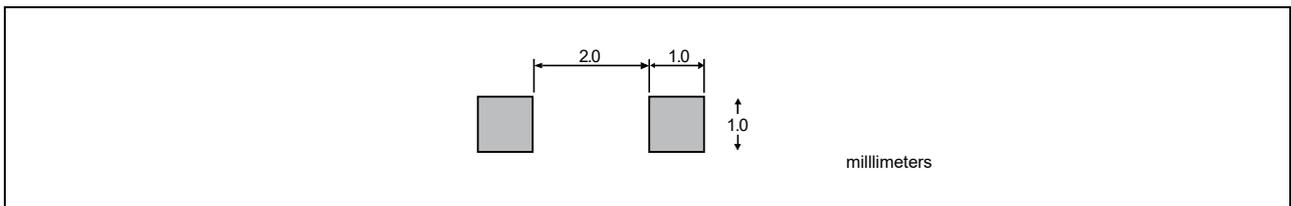
**Typical Characteristics** ( $T_{amb} = 25\text{ }^{\circ}\text{C}$  unless otherwise specified)



## Package Dimensions



## Pad Dimensions



## Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
CS2AL thur CS2ML	SOD-123FL	Tape and reel	3000pcs / reel	EIA STD RS-481

## Revision history

Date	Revision	Changes
23-May-2012	1.0	Initial release
21-May-2019	2.0	Update

## 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