

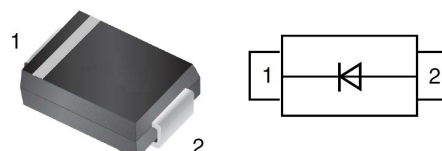
Schottky Barrier Rectifier in DO-214AC/SMA

Features

- Schottky barrier diodes
- Low forward voltage drop
- High Tunction Temperature

Mechanical Data

- **Case:** DO-214AC/SMA (plastic package).
Lead free; RoHS compliant
- **Molding Compound Flammability Rating:**
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:
260 °C/10 sec. at terminals



Applications

For use in low voltage,high frequency inverters, free wheeling, and polarity protection application

Absolute Maximum Ratings							
Ratings at 25 °C, ambient temperature unless otherwise specified							
Parameter	Symbol	SK38A	SK39A	SK310A	SK315A	SK320A	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	80	90	100	150	200	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	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}	100					A
Operating junction and storage temperature range	T_J, T_{STG}	- 55 to + 150					°C

Electrical Characteristics								
(T _A = 25 °C unless otherwise specified)								
Parameter	Test Conditions	Symbol	SK38A	SK39A	SK310A	SK315A	SK320A	Unit
Maximum instantaneous forward voltage	$I_F=3A, T_A=25^{\circ}C$	V_F	0.85			0.95		V
Maximum DC reverse current at rated DC blocking voltage	$T_A=25^{\circ}C$	I_R	0.50					mA
	$T_A=125^{\circ}C$		20					
Typical junction capacitance	4.0 V, 1 MHz	C_J	250					pF

Thermal Characteristics							
Parameter	Symbol	SK38A	SK39A	SK310A	SK315A	SK320A	Unit
Typical thermal resistance ⁽¹⁾	$R_{\theta JA}$	77					°C/W
	$R_{\theta JC}$	40					
	$R_{\theta JI}$	18					

Note1: Thermal resistance from junction to lead, mounted on PCB with 5.0x5.0mm copper pads

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

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

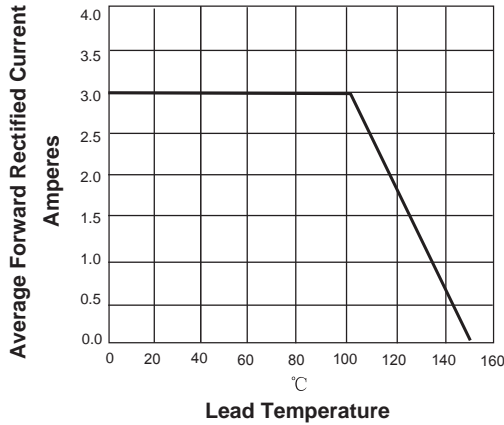


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

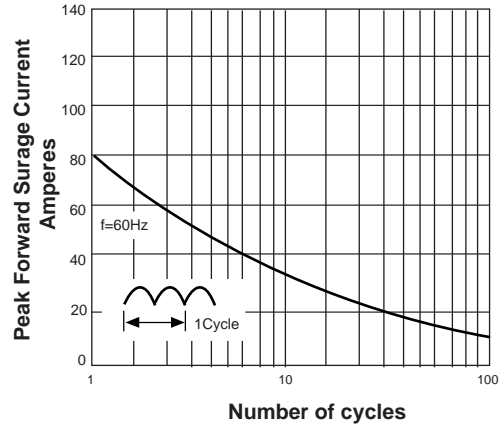


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

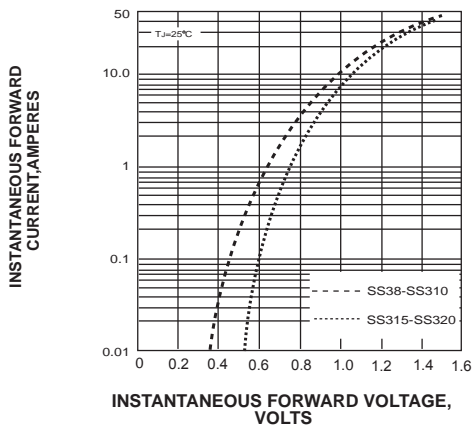
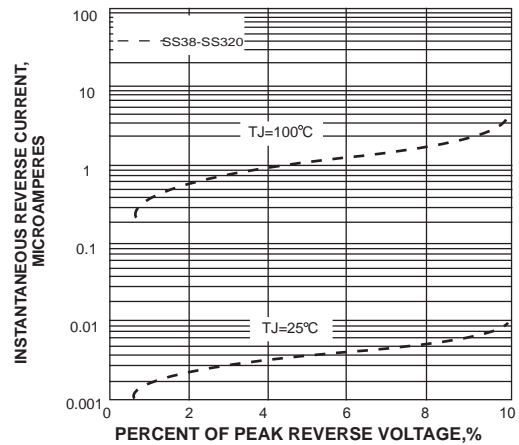
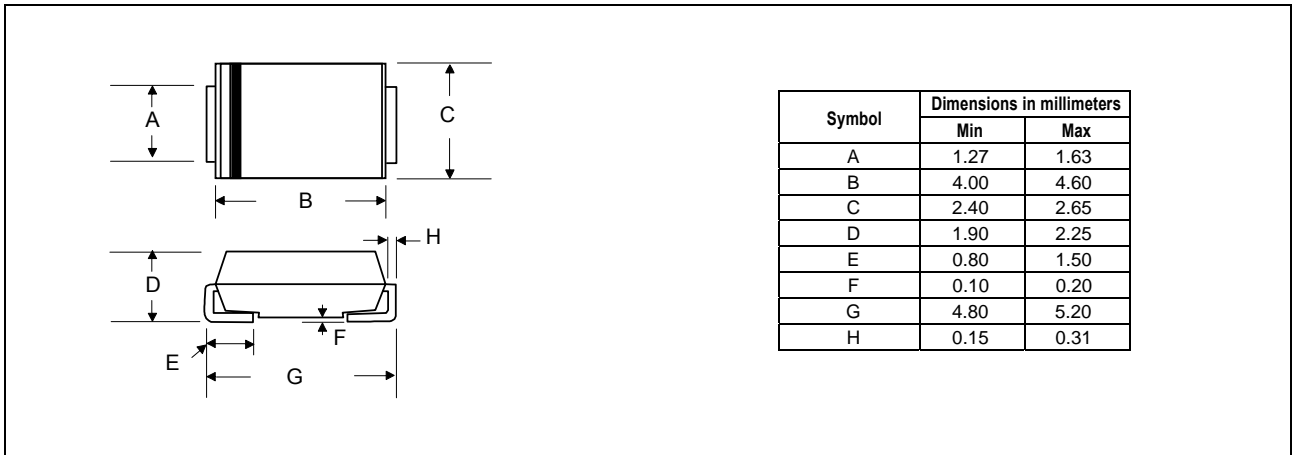


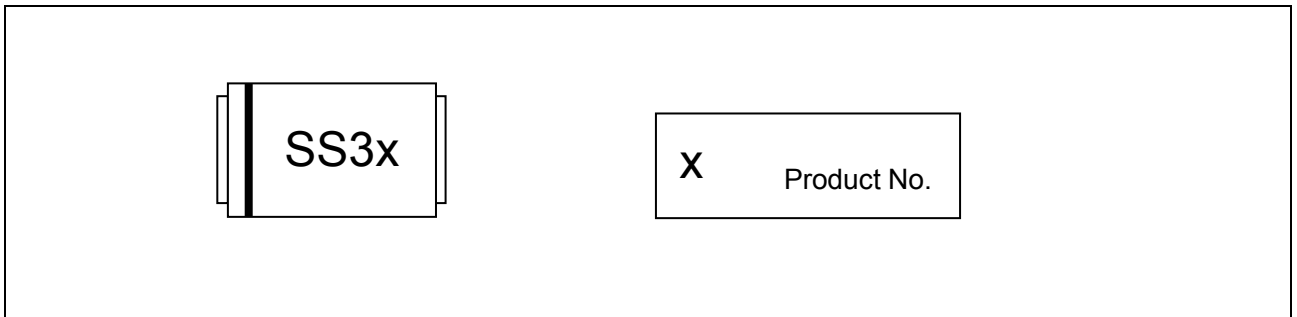
FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Package Dimensions



Marking



Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
SK38A Thur SK320A	DO-214AC/SMA	Tape and reel	5000pcs / reel	EIA STD RS-481

Revision history

Date	Revision	Changes
23-May-2012	1.0	Initial release

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