Technical Data
Data Sheet N1688 Rev. A

SK32BF THRU SK320BF SCHOTTKY RECTIFIER

SMBF

Features

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- This is a Pb − Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram

Mechanical Data

- Case: SMBF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.057g

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	SK32 BF	SK34 BF	SK36 BF	SK38 BF	SK310 BF	SK312 BF	SK315 BF	SK320 BF	Units
Peak Repetitive Reverse Voltage DC Blocking Voltage	V_{RRM} V_{DC}	20	40	60	80	100	120	150	200	V
Maximum RMS voltage	V_{RMS}	14	28	42	56	70	84	105	140	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	3.0								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	80				70				A
Max Instantaneous Forward Voltage at 2 A	V_F	0.55		0.70		0.85		0.95		V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 100°C @T_A = 125°C	I_{RM}	0.5 5 /				0.3 / 5				mA
Typical Thermal Resistance Junction to Ambient (Note 1)	$R_{\theta JA}$	50								°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150								°C

Note: 1. P.C.B. mounted with 0.5 X 0.5" (12.7 X 12.7 mm) copper pad areas.

Technical Data
Data Sheet N1688 Rev. A

RoHS

Ratings and Characteristics Curves

Fig.1 Forward Current Derating Curve

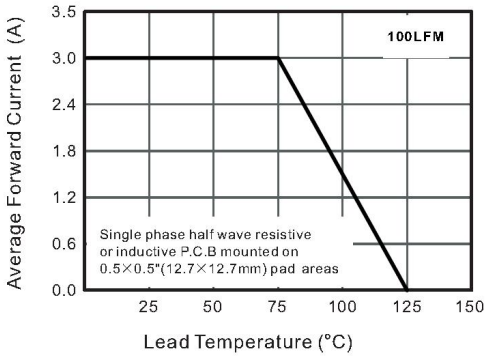


Fig.2 Typical Reverse Characteristics

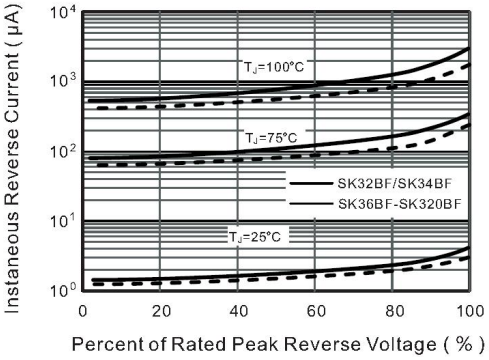


Fig.3 Typical Forward Characteristic

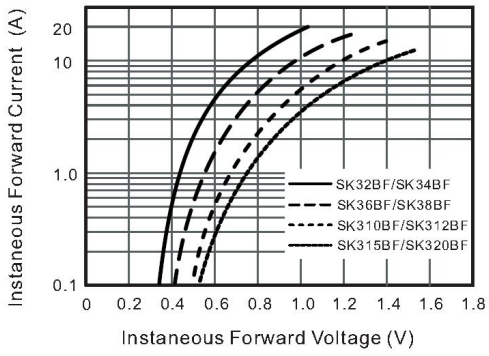


Fig.4 Maximum Non-Repetitive Peak Forward Surage Current

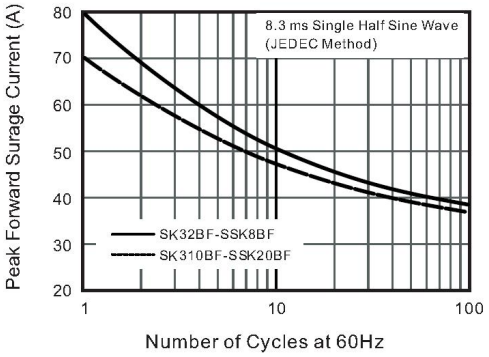
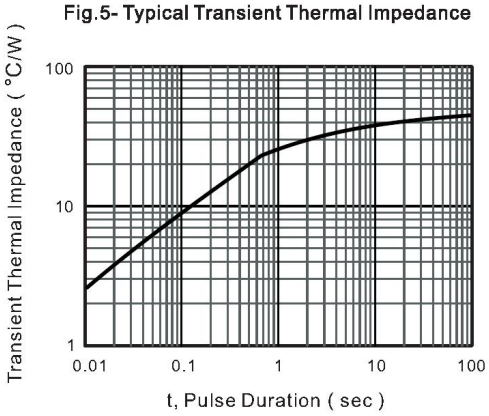


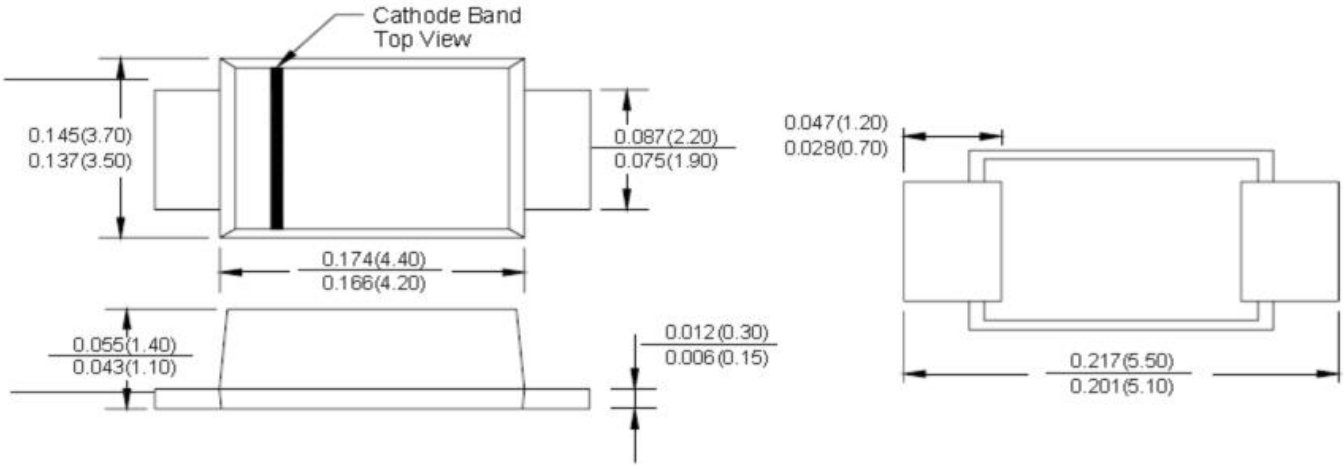
Fig.5- Typical Transient Thermal Impedance



Technical Data
Data Sheet N1688 Rev. A

RoHS

Mechanical Dimensions SMBF(Inches/Millimeters)

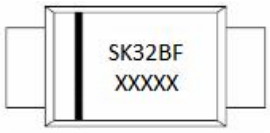


Ordering Information

Device	Package	Shipping
SK32BF THRU SK320BF	SMBF (Pb-Free)	5000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

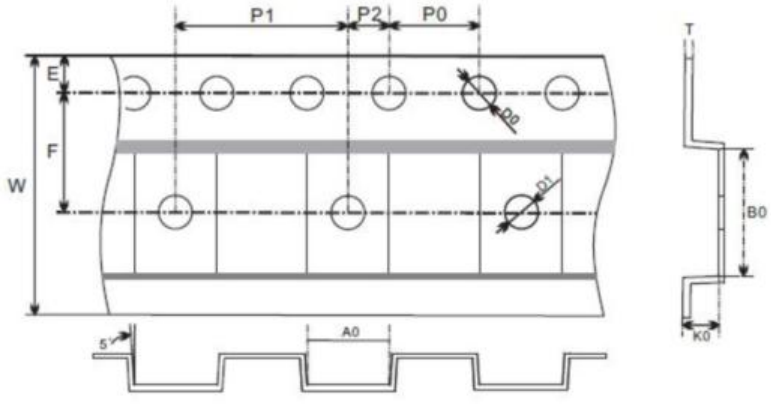
Marking Diagram



Where XXXXX is YYWWL

SK32BF = Part Name
YY = Year
WW = Week
L = Lot Number

Carrier Tape Specification SMBF



SYMBOL	Millimeters	
	Min.	Max.
A0	3.70	3.90
B0	5.65	5.85
K0	1.30	1.50
P0	3.90	4.10
P1	7.90	8.10
P2	1.90	2.10
T	0.23	0.27
E	1.65	1.85
F	5.45	5.65
D0	1.50	1.60
D1	1.50	1.60
W	11.90	12.10

Technical Data
Data Sheet N1688 Rev. A

DISCLAIMER:

1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the SMC - Sangdest Microelectronics (Nanjing) Co., Ltd sales department for the latest version of the datasheet(s).

2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment , and safety equipment) , safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement .

3- In no event shall SMC - Sangdest Microelectronics (Nanjing) Co., Ltd be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). SMC - Sangdest Microelectronics (Nanjing) Co., Ltd assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.

4- In no event shall SMC - Sangdest Microelectronics (Nanjing) Co., Ltd be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.

5- No license is granted by the datasheet(s) under any patents or other rights of any third party or SMC - Sangdest Microelectronics (Nanjing) Co., Ltd.

6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of SMC - Sangdest Microelectronics (Nanjing) Co., Ltd.

7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations..