

Features

- Schottky barrier diodes
- Low forward voltage drop
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- Solder dip 260 °C, 10 s
- Low profile, typical thickness 1.2mm



SMBF

Typical Applications

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

Maximum Ratings (TA = 25 °C unless otherwise noted)				
Parameter	Symbol	SMBF5150S	SMBF5200S	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	150	200	V
Maximum RMS voltage	V_{RMS}	105	140	V
Maximum DC blocking voltage	V_{DC}	150	200	V
Maximum average forward rectified current	$I_{F(AV)}$	5.0		A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	120		A
Operating junction and storage temperature range	T_J, T_{STG}	- 55 to + 150		°C

Electrical Characteristics (TA = 25 °C unless otherwise noted)					
Parameter	Test Conditions	Symbol	SMBF5150S	SMBF5200S	Unit
Maximum instantaneous forward voltage	$I_F=5A, T_A=25^\circ C$	V_F	0.85		V
Maximum DC reverse current at rated DC blocking voltage	$T_A=25^\circ C$	I_R	5		uA
	$T_A=125^\circ C$		1000		
Typical junction capacitance	4.0 V, 1 MHz	C_J	96		pF

Thermal Characteristics				
Parameter	Symbol	SMBF5150S	SMBF5200S	Unit
Typical thermal resistance junction to lead Note1)	$R_{\theta JI}$	TBD		°C/W
Typical thermal resistance junction to lead Note2)	$R_{\theta JI}$	TBD		°C/W

Note1): Mounted on PCB with 7*7mm copper pad, 2 OZ, FR4 PCB;

Note2): Mounted on PCB with 30*30mm copper pad, 2 OZ, FR4 PCB;

Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

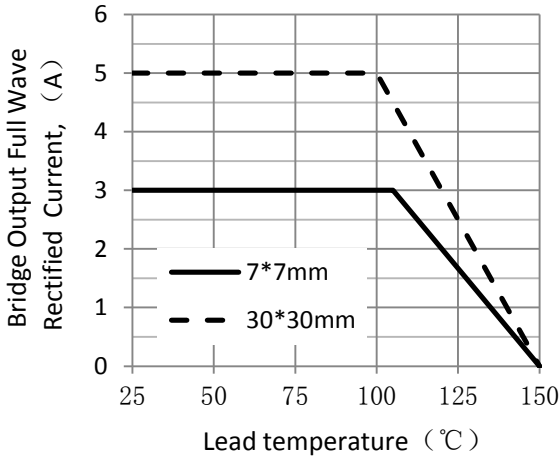


Figure 1. Forward Current Derating Curve

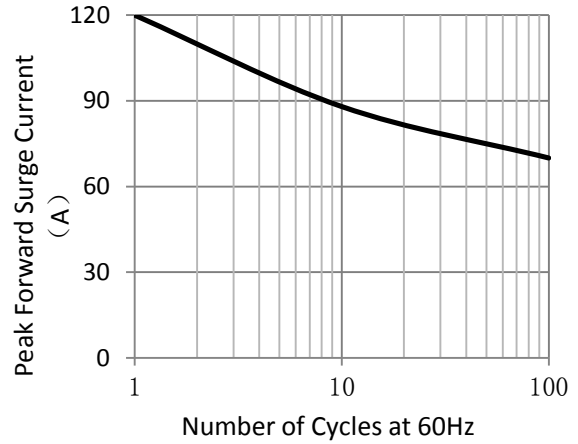


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

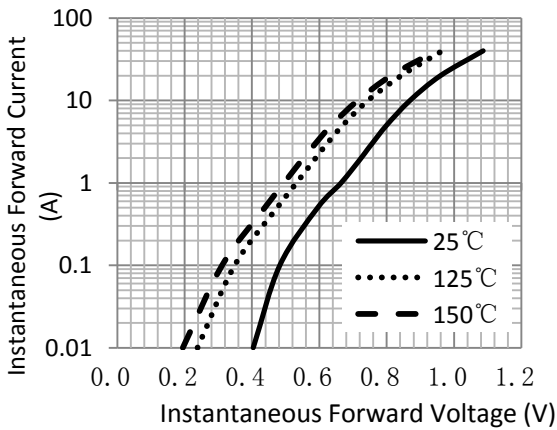


Figure 3. Typical Instantaneous Forward Characteristics

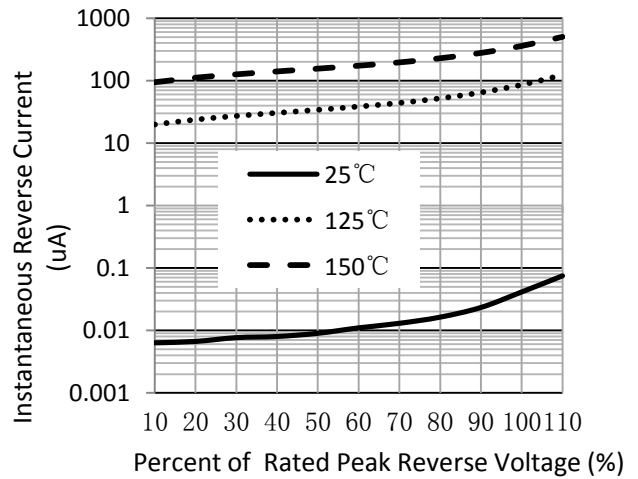
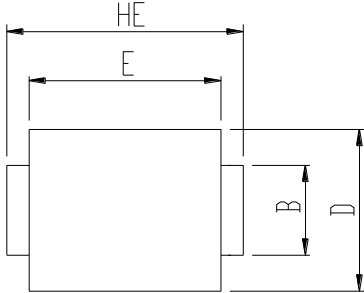
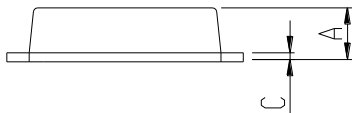


Figure 4. Typical Reverse Characteristics

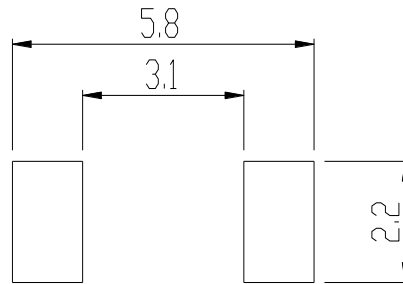
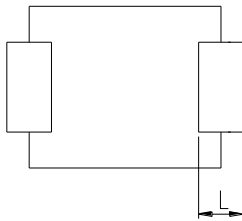
Package Outline Dimensions



DIM	unit: mm		unit: inch	
	MIN	MAX	MIN	MAX
A	1.1	1.3	0.043	0.051
B	1.9	2.1	0.075	0.083
C	0.15	0.3	0.006	0.012
D	3.5	3.7	0.138	0.146
E	4.2	4.45	0.165	0.175
HE	5.1	5.5	0.201	0.217
L	0.75	1.2	0.030	0.047



Soldering footprint

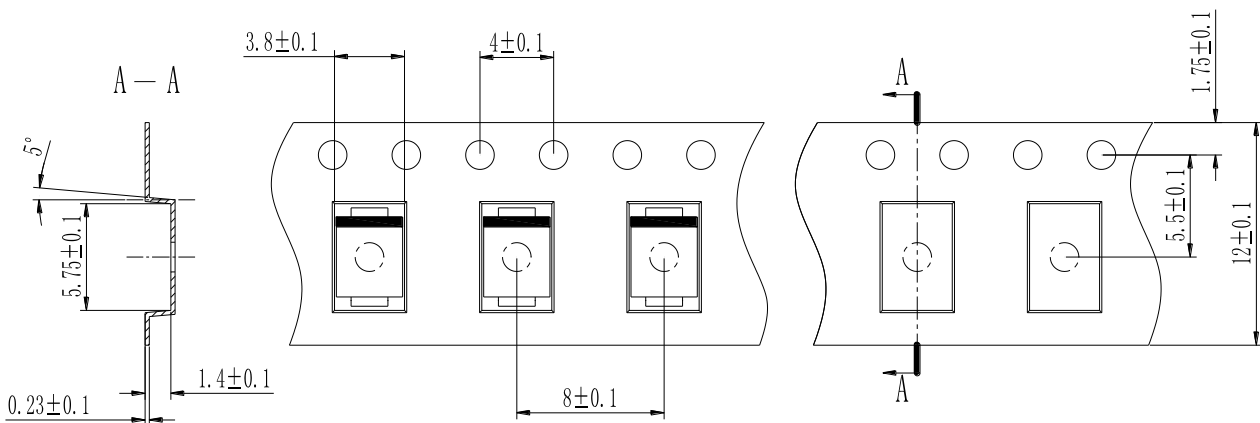


Packing Information

Packing quantities:

Reel size	Quantity/reel	Quantity/inner Box	Quantity/Carton
7"	TBD	TBD	TBD
13"	5K	10K	90K

Tape & Reel Specification





SMBF5150S thru SMBF5200S

Surface Mount Schottky Rectifier
Reverse Voltage 150~200V Forward Current 5A

Disclaimers

These materials are intended as a reference to assist our customers in the selection of the Suzhou Good-Ark product best suited to the customer's application; they do not convey any license under any intellectual property rights, or any other rights, belonging to Suzhou Good-Ark Electronics Co., Ltd. or a third party.

Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, or infringement of any third-party's rights, originating in the use of any product data, diagrams, charts, programs, algorithms, or circuit application examples contained in these materials.

All information contained in these materials, including product data, diagrams, charts, programs and algorithms represents information on products at the time of publication of these materials, and are subject to change by Suzhou Good-Ark Electronics Co., Ltd. without notice due to product improvements or other reasons. It is therefore recommended that customers contact Suzhou Good-Ark Electronics Co., Ltd. or an authorized Suzhou Good-Ark Electronics Co., Ltd. for the latest product information before purchasing a product listed herein. The information described here may contain technical inaccuracies or typographical errors. Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, liability, or other loss rising from these inaccuracies or errors. Please also pay attention to information published by Suzhou Good-Ark Electronics Co., Ltd. by various means, including our website home page.
(<http://www.goodark.com>)

When using any or all of the information contained in these materials, including product data, diagrams, charts, programs, and algorithms, Please be sure to evaluate all information as a total system before making a final decision on the applicability of the information and products. Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, liability or other loss resulting from the information contained herein.

The prior written approval of Suzhou Good-Ark Electronics Co., Ltd. is necessary to reprint or reproduce in whole or in part these materials.

Please contact Suzhou Good-Ark Electronics Co., Ltd. or an authorized distributor for further details on these materials or the products contained herein.