

Features

- Glass passivated fast recovery rectifiers
- Ideal for automated placement
- Low forward voltage drop
- Low leakage current
- Solder dip 260 °C, 10 s
- Low profile, typical thickness 1.2mm



SMBF

Mechanical Data

Case:SMBF,Molding compound:UL flammability classification rating 94V-0,MSL1:per J-STD-020

Terminal:Matte tin plated leads,solderable per JESD22-B102,Meet JESD 201 class 1A whisker test

Polarity:Indicated by cathode band;

Weight:0.101g (approximately)

Maximum Ratings (TA = 25 °C unless otherwise noted)							
Parameter	Symbol	SMBF202F	SMBF204F	SMBF206F	SMBF208F	SMBF210F	Unit
Maximum repetitive peak reverse voltage	VRRM	200	400	600	800	1000	V
Maximum RMS voltage	VRMS	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	200	400	600	800	1000	V
Maximum average forward rectified current	IF(AV) ¹⁾	2.0					A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	60					A
Rating for fusing(t<8.3ms)	I ² t	15.0					A ² sec
Operating junction and storage temperature range	TJ, TSTG	- 55 to + 150					°C

Electrical Characteristics (T _A = 25 °C unless otherwise noted)									
Parameter	Test Conditions	Symbol	SMBF202F	SMBF204F	SMBF206F	SMBF208F	SMBF210F	Unit	
Minimum Breakdown voltage	Ta=25°C,IR=100uA	V _{BR}	200	400	600	800	1000	Volts	
Maximum Instantaneous forward voltage	IF=1A, Ta=25°C	VF	1.0						
	IF=2A, Ta=25°C		1.3						
	IF=2A, Ta=125°C		0.95						
Maximum DC reverse current at rated DC blocking voltage	Ta=25°C	IR	5						uA
	Ta=125°C		50						
Maximum reverse recovery time	I _F =0.5A,I _R =1.0A, I _{rr} =0.25A	t _{rr}	150			250			nS
Typical junction capacitance	4.0 V, 1 MHz	C _J	10.4						pF
Typical thermal resistance ¹⁾	junction to ambient	R _{θJA}	TBD						°C/W
	junction to case	R _{θJC}	TBD						
	junction to lead	R _{θJL}	TBD						

Note1):Mounted on PCB with 8*8mm copper pad,2 OZ,FR4 PCB;

Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

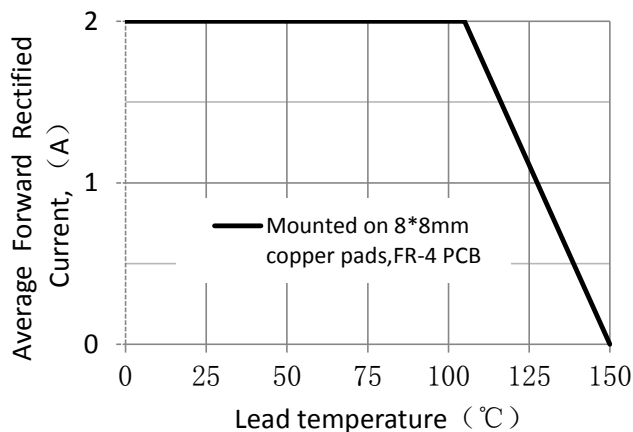


Figure 1. Forward Current Derating Curve

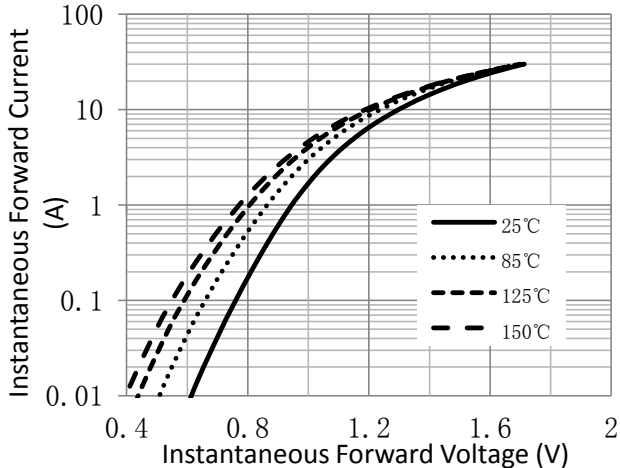


Figure 3. Typical Reverse Characteristics

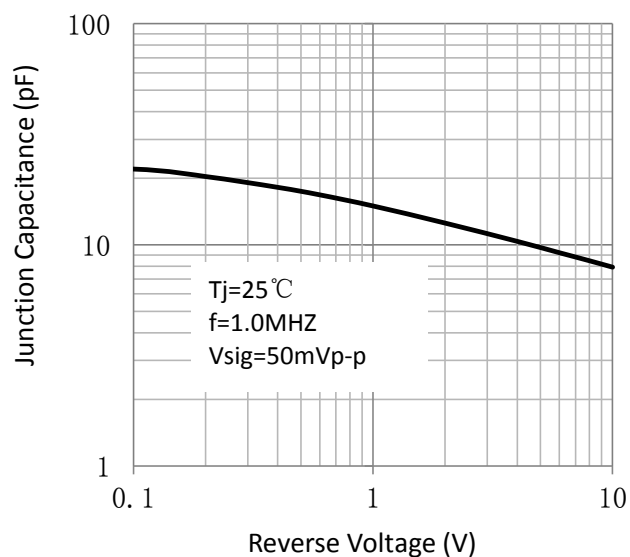


Figure 5. Typical Junction Capacitance

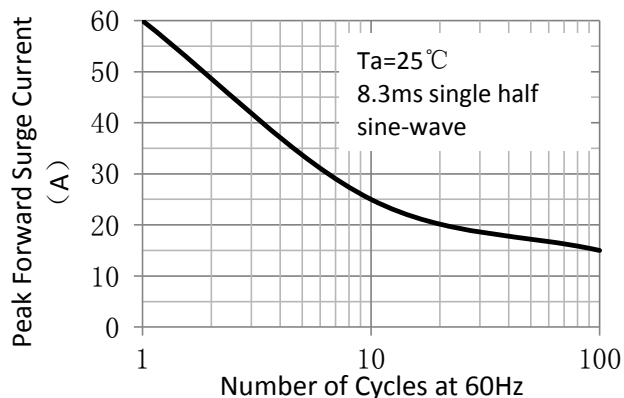


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

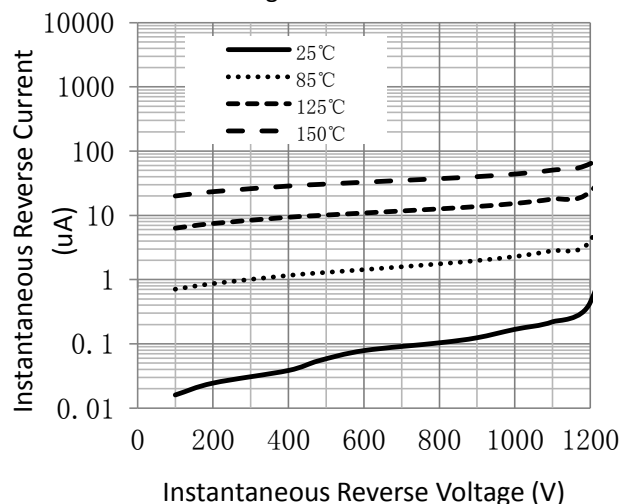
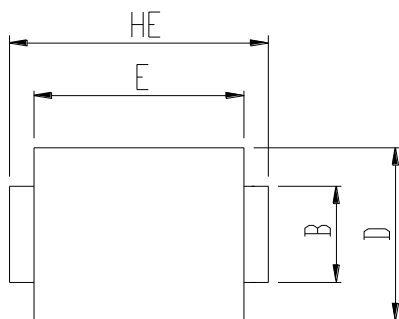
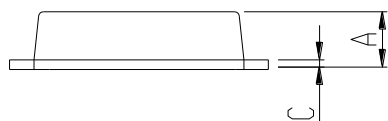


Figure 4. Typical Instantaneous Forward Characteristics

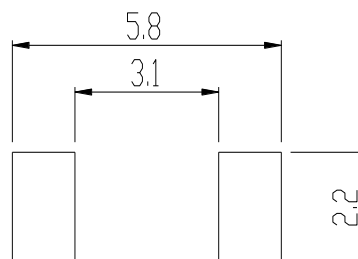
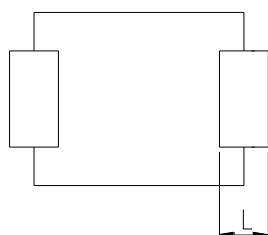
Package Outline Dimensions



DIM	unit: mm		unit: inch	
	MIN	MAX	MIN	MIN
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

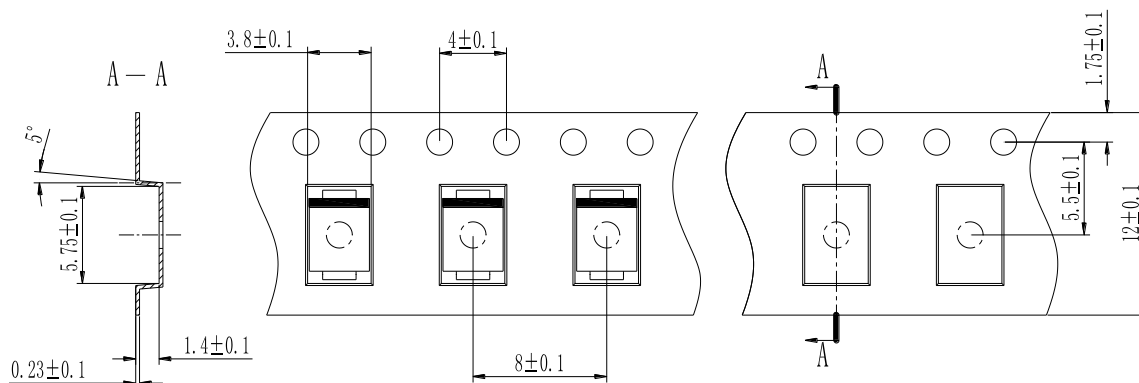


Packing Information

Packing quantities:

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

Tape & Reel Specification





SMBF202F thru SMBF210F

Surface Mount Glass Passivated Fast Recovery Rectifiers

Reverse Voltage 50~1000V Forward Current 2.0A

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