



# SMBF202H thru SMBF210H

Surface Mount Glass Passivated High Efficient Rectifiers  
Reverse Voltage 50~1000V Forward Current 2.0A

## Features

- Glass passivated high efficient 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	SMBF202H	SMBF204H	SMBF206H	SMBF208H	SMBF210H	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) <sup>1)</sup>	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 <sup>2</sup> t	15.0					A <sup>2</sup> sec
Operating junction and storage temperature range	TJ, TSTG	- 55 to + 150					°C

Electrical Characteristics (TA = 25 °C unless otherwise noted)								
Parameter	Test Conditions	Symbol	SMBF202H	SMBF204H	SMBF206H	SMBF208H	SMBF210H	Unit
Minimum Breakdown voltage	Ta=25°C,IR=100uA	V <sub>BR</sub>	200	400	600	800	1000	Volts
Maximum Instantaneous forward voltage	IF=2A, Ta=25°C	VF	1.0		1.3	1.7		
	IF=2A, Ta=125°C		1.2					
Maximum DC reverse current at rated DC blocking voltage	Ta=25°C	IR	5					uA
	Ta=125°C		50					
Maximum reverse recovery time	IF=0.5A,IR=1.0A, I <sub>rr</sub> =0.25A	t <sub>rr</sub>	75					nS
Typical junction capacitance	4.0 V, 1 MHz	C <sub>J</sub>	10.2					pF
Typical thermal resistance <sup>1)</sup>	junction to ambient	R <sub>θJA</sub>	TBD					°C/W
	junction to case	R <sub>θJC</sub>	TBD					
	junction to lead	R <sub>θJL</sub>	TBD					

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



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## Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

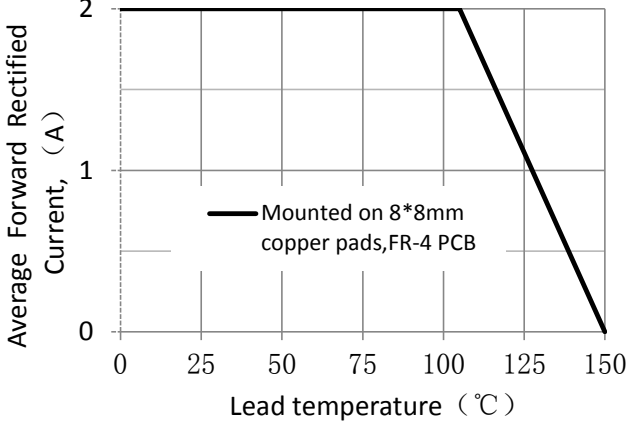


Figure 1. Forward Current Derating Curve

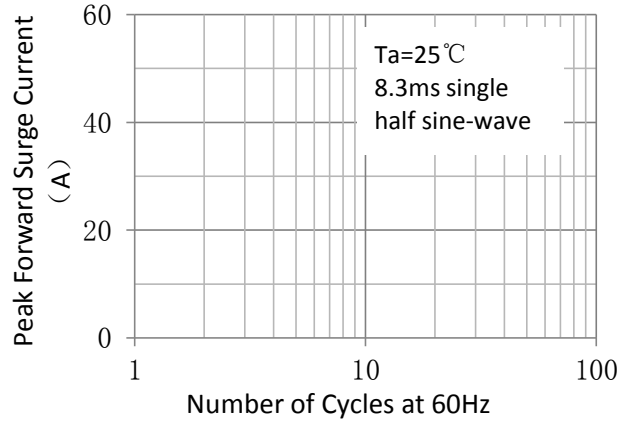


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

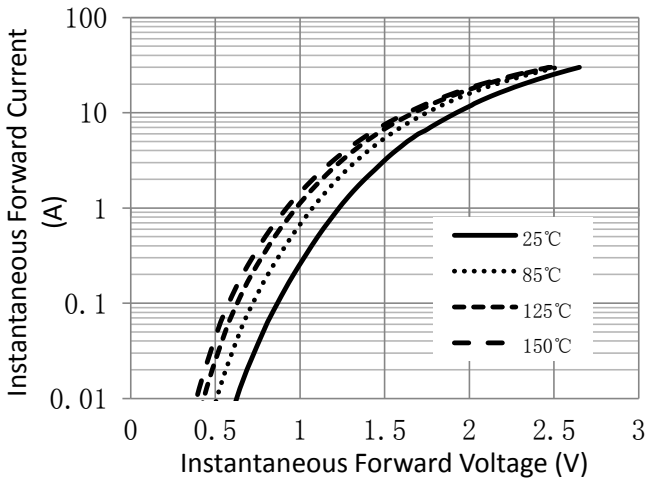


Figure 3. Typical Reverse Characteristics

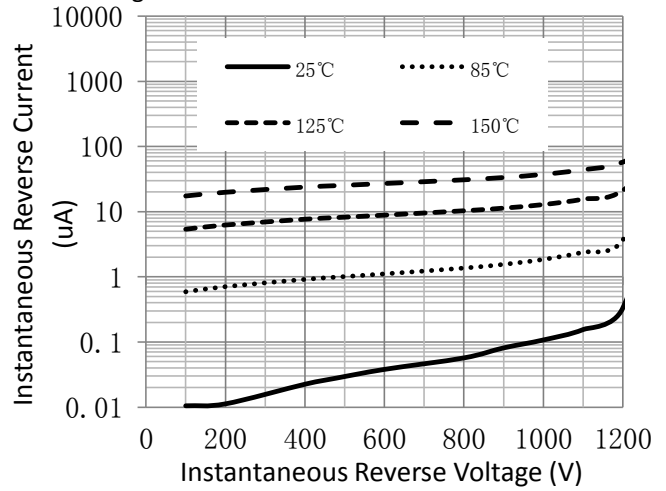


Figure 4. Typical Instantaneous Forward Characteristics

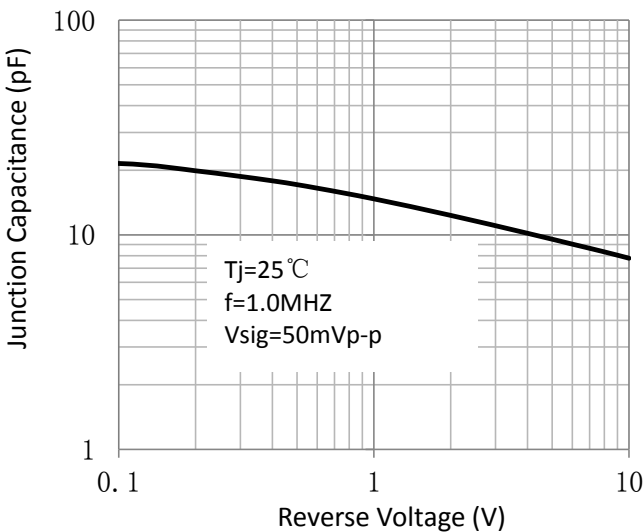
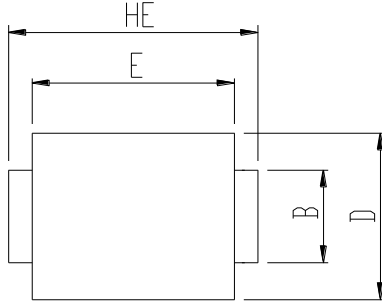
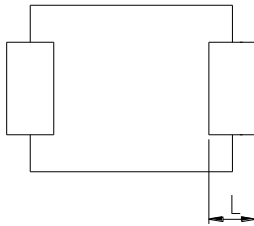
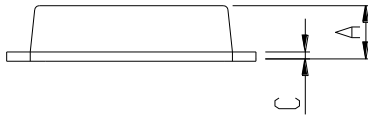


Figure 5. Typical Junction Capacitance

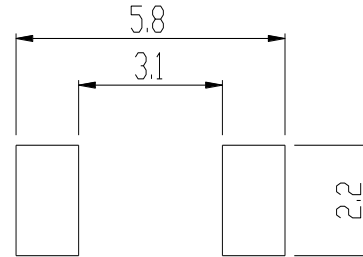
## Package Outline Dimensions



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

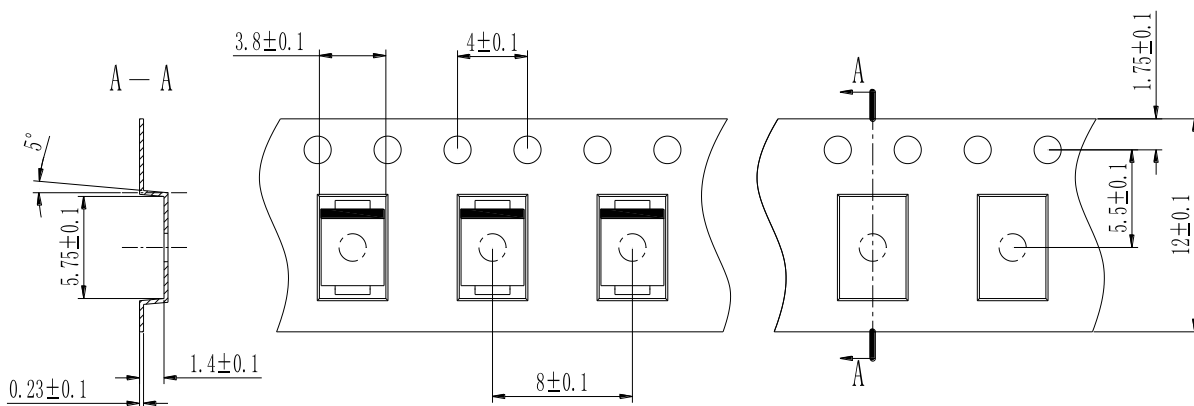


## Packing Information

Packing quantities:

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

Tape & Reel Specification





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