

# S3ABF~S3MBF

ROHS

## Surface Mount General Purpose Silicon Rectifiers

### Features

- ◆ For surface mounted applications
- ◆ Low profile package
- ◆ Glass passivated chip junction
- ◆ Easy to pick and place
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

### Mechanical Data

- ◆ Case: SMBF
- ◆ Quantity Per Reel : 3,000pcs
- ◆ Approx. Weight : 57mg/0.002oz
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026

### Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

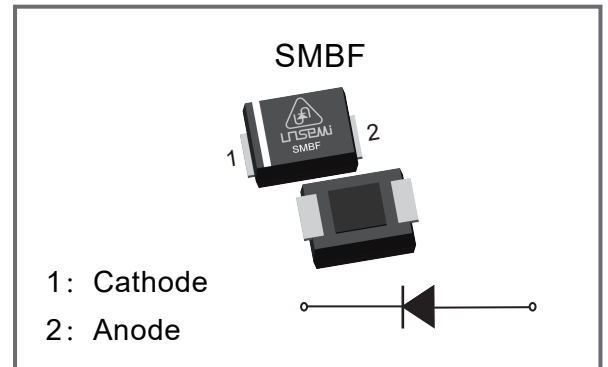
Parameter	Symbol	S3ABF	S3BBF	S3DBF	S3GBF	S3JBF	S3KBF	S3MBF	Units	
Maximum Repetitive Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V	
Maximum Average Forward Rectified Current at Tc=115°C	IF(AV)	3.0							A	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load	IFSM	80							A	
Maximum Forward Voltage at 3A	VF	1.1							V	
Maximum DC Reverse Current at Rated DC Reverse Voltage	Ta=25°C	IR	5.0							μA
	Ta=125°C	IR	150							
Typical Junction Capacitance <sup>(1)</sup>	Cj	35							pF	
Typical Thermal Resistance <sup>(2)</sup>	RθJA	45							°C/W	
	RθJC	15								
Operating and Storage Temperature Range	TJ, Tstg	-55 ~ +150							°C	

Note: (1) Measured at 1MHz and applied reverse voltage of 4 VDC.

(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5cm) copper pad areas.



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Electrical Characteristics Curves

Fig.1 Maximum Average Forward Current Rating

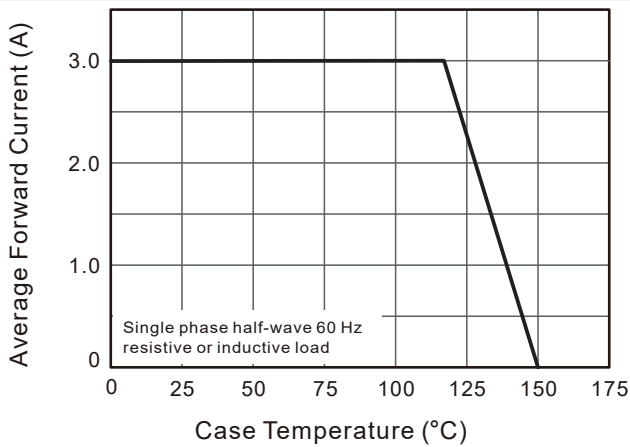


Fig. 2 Typical Reverse Characteristics

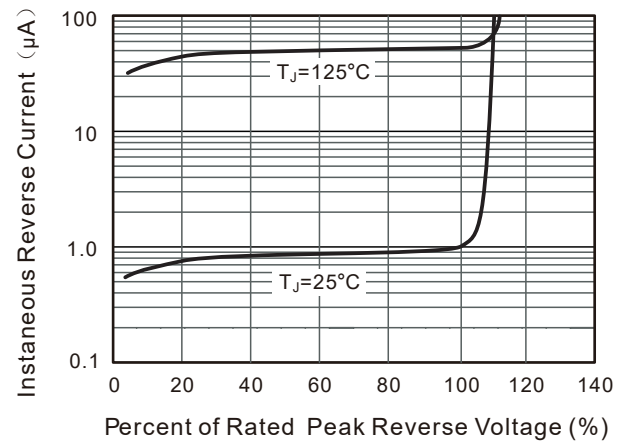


Fig.3 Typical Forward Characteristics

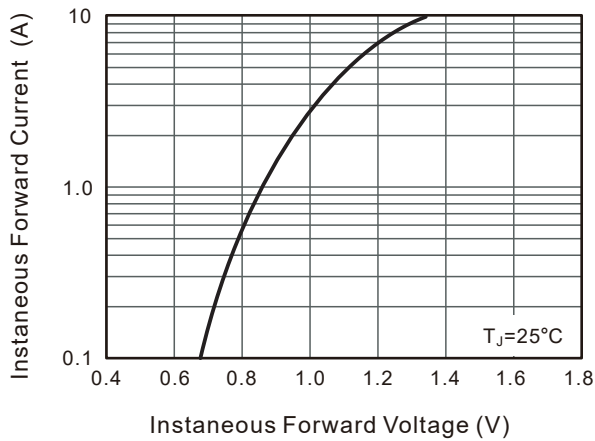


Fig. 4 Typical Junction Capacitance

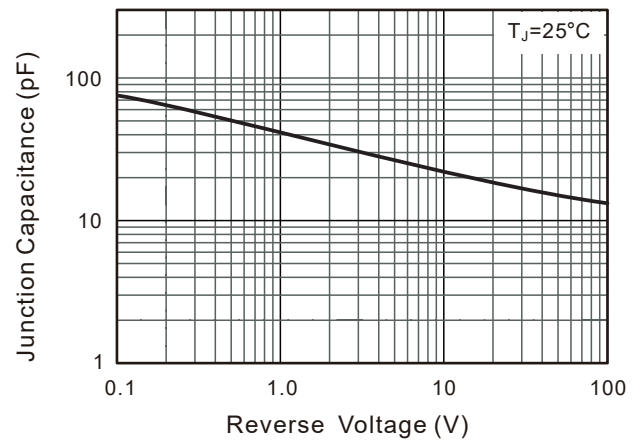
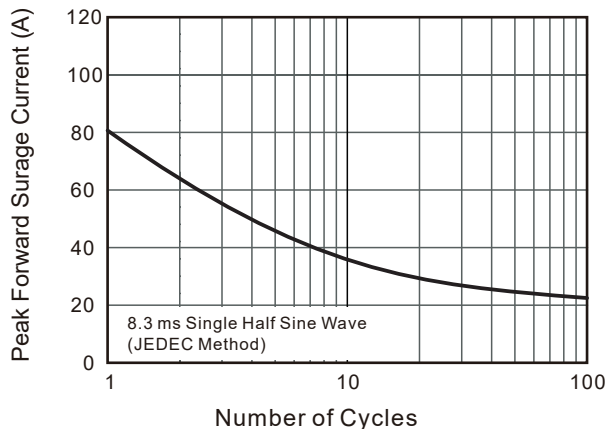
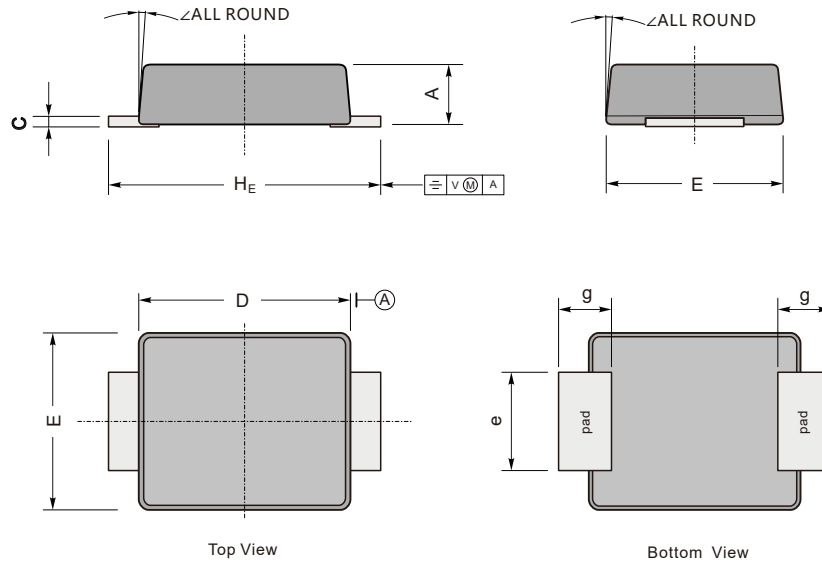


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



**Package Outline & Dimensions**



UNIT		A	C	D	E	H <sub>E</sub>	e	g	∠
mm	max	1.3	0.26	4.4	3.7	5.5	2.2	1.0	9°
	min	1.1	0.18	4.2	3.5	5.1	1.9		
mil	max	51	10	173	146	216	86	40	
	min	43	7	165	138	200	75		

**Marking**

Type Number	S3ABF	S3BBF	S3DBF	S3GBF	S3JBF	S3KBF	S3MBF
Making	S3AB	S3BB	S3DB	S3GB	S3JB	S3KB	S3MB

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