

## S3ABF THRU S3MBF

## 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



Simplified outline SMBF and symbol

## Mechanical Data

- Case: SMBF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 57mg / 0.002oz

## Pinning

PIN	DESCRIPTION
1	Cathode
2	Anode

## Absolute Maximum Ratings And Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

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

Parameter	Symbols	S3ABF	S3BBF	S3DBF	S3GBF	S3JBF	S3KBF	S3MBF	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_c = 125^\circ C$	$I_{F(AV)}$	3						A	
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	$I_{FSM}$	80						A	
Maximum Forward Voltage at 1 A	$V_F$	1.1						V	
Maximum DC Reverse Current $T_a = 25^\circ C$ at Rated DC Blocking Voltage $T_a = 125^\circ C$	$I_R$	5 150						$\mu A$	
Typical Junction Capacitance <sup>(1)</sup>	$C_j$	35						pF	
Typical Thermal Resistance <sup>(2)</sup>	$R_{\theta JA}$ $R_{\theta JC}$	45 15						$^\circ C/W$	
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 ~ +150						$^\circ C$	

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C.

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

## Rating And Characteristic Curves

Fig.1 Forward Current Derating Curve

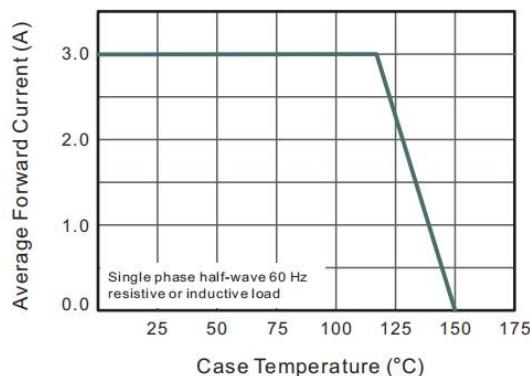


Fig.2 Typical Reverse Characteristics

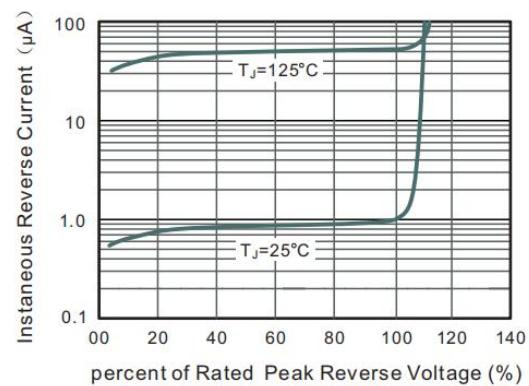


Fig.3 Typical Forward Characteristic

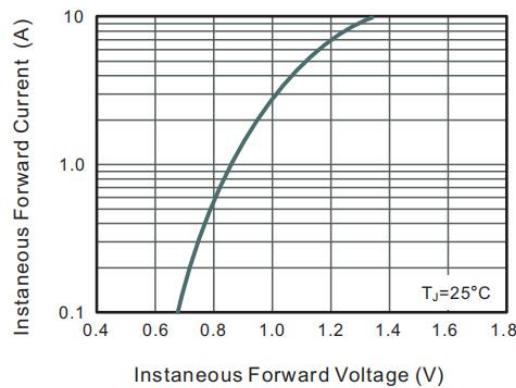


Fig.4 Typical Junction Capacitance

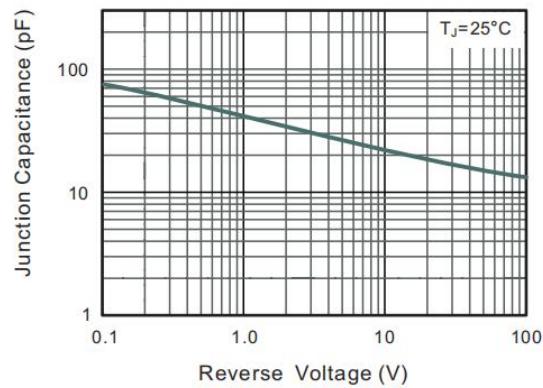
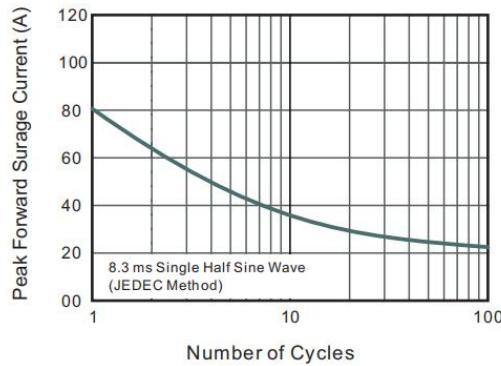


Fig.5 Maximum Non-Repetitive Peak

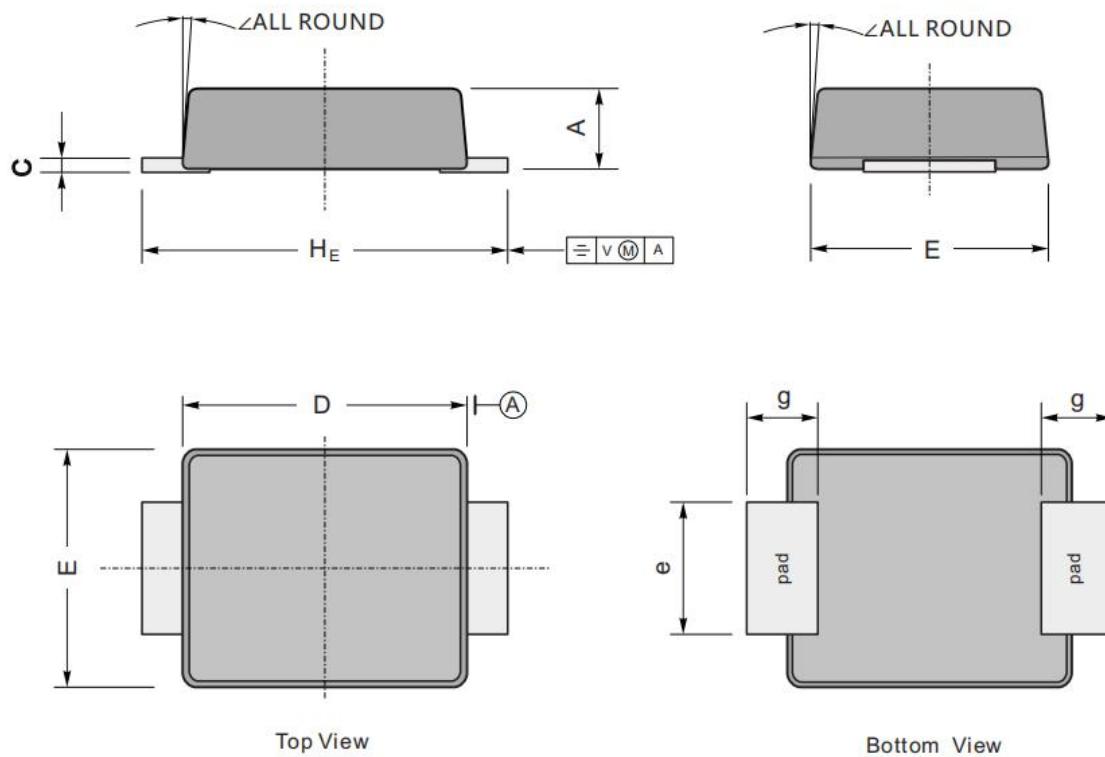
Forward Surge Current



## Package Outline

Plastic surface mounted package; 2 leads

SMBF



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

The recommended mounting pad size

