

## RS3ABF THRU RS3MBF

## Features

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Fast reverse recovery time
- Lead free in comply with EU RoHS 2011/65/EU directives

## Mechanical Data

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



Simplified outline SMBF and symbol

## 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	RS3ABF	RS3BBF	RS3DBF	RS3GBF	RS3JBF	RS3KBF	RS3MBF	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	$V_F$	1.3						V			
Maximum DC Reverse Current $T_a = 25^\circ C$ at Rated DC Blocking Voltage $T_a = 125^\circ C$	$I_R$	5 100						$\mu A$			
Typical Junction Capacitance at $VR=4V f=1M$	$C_j$	40						$pF$			
Maximum Reverse Recovery Time <sup>(1)</sup>	$t_{rr}$	150			250		500		ns		
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 with  $IF = 0.5 A$ ,  $IR = 1 A$ ,  $Irr = 0.25 A$ 

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

## Rating And Characteristic Curves

Fig.1 Maximum Average Forward Current Rating

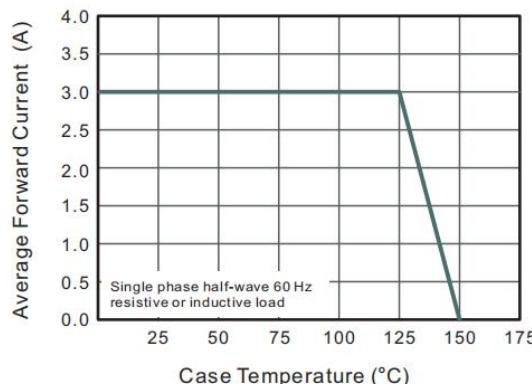


Fig.2 Typical Reverse Characteristics

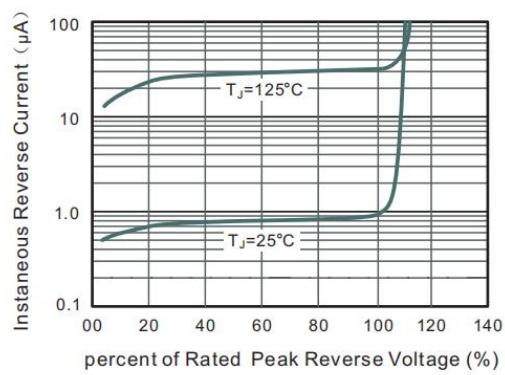


Fig.3 Typical Instantaneous Forward Characteristics

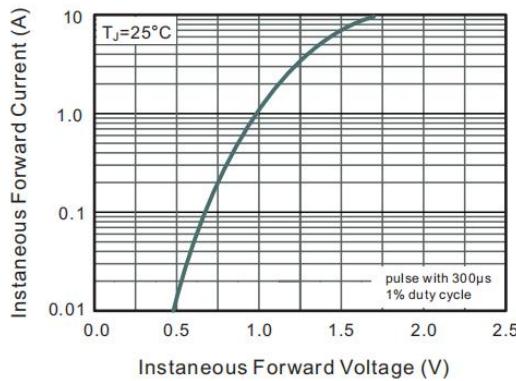


Fig.4 Typical Junction Capacitance

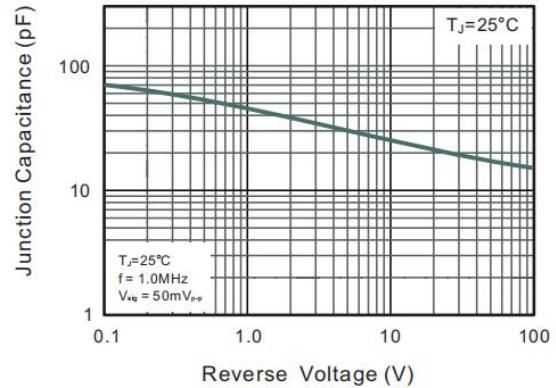
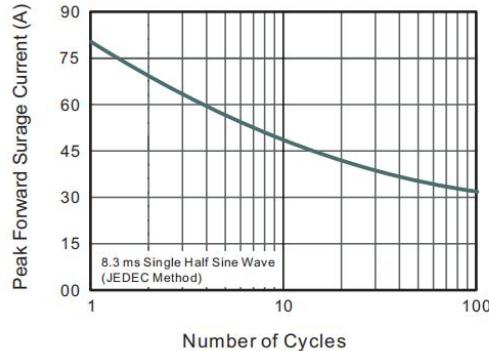


Fig.5 Maximum Non-Repetitive Peak

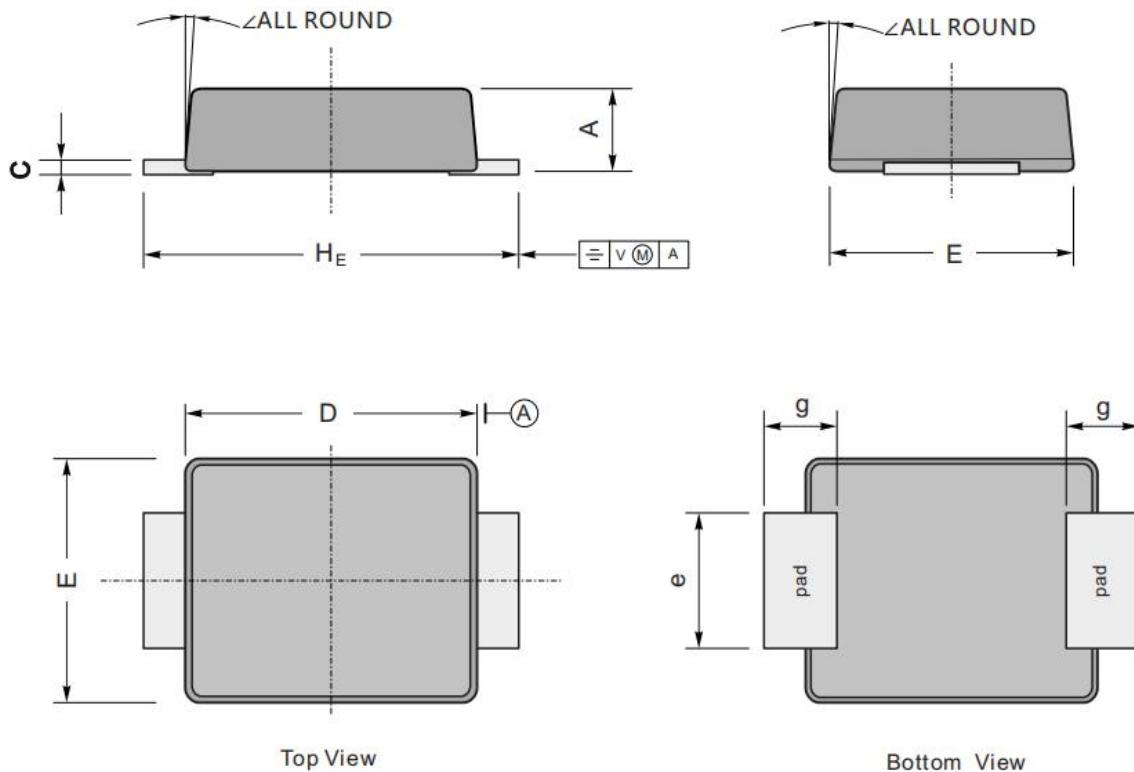
Forward Surge Current



## Package Outline

Plastic surface mounted package; 2 leads

SMBF



UNIT		A	C	D	E	e	H <sub>E</sub>	g	∠
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

