

### Surface Mount Fast Recovery Rectifiers

Reverse Voltage - 50 to 1000 V

Forward Current - 2 A

#### 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

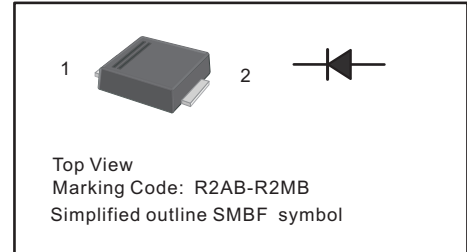
#### Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

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

#### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



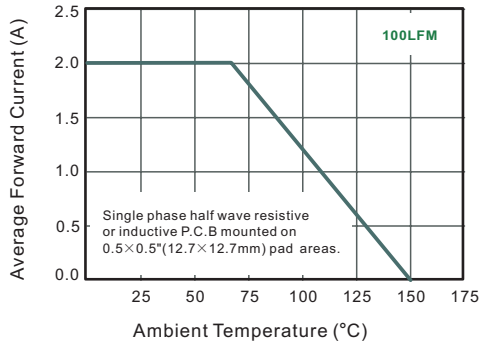
Parameter	Symbols	RS2ABF	RS2BBF	RS2DBF	RS2GBF	RS2JBF	RS2KBF	RS2MBF	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_a = 65\text{ }^\circ\text{C}$	$I_{F(AV)}$	2							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	50							A
Maximum Instantaneous Forward Voltage at 2 A	$V_F$	1.3							V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a = 25\text{ }^\circ\text{C}$ $T_a = 125\text{ }^\circ\text{C}$	$I_R$	5 100							$\mu\text{A}$
Maximum Reverse Recovery Time <sup>1)</sup>	$t_{rr}$	150				250	500		ns
Typical Junction Capacitance <sup>2)</sup>	$C_j$	40							pF
Typical Thermal Resistance <sup>3)</sup>	$R_{\theta JA}$	65							$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 ~ +150							$^\circ\text{C}$

1) Measured with  $I_F = 0.5\text{ A}$ ,  $I_R = 1\text{ A}$ ,  $I_{rr} = 0.25\text{ A}$

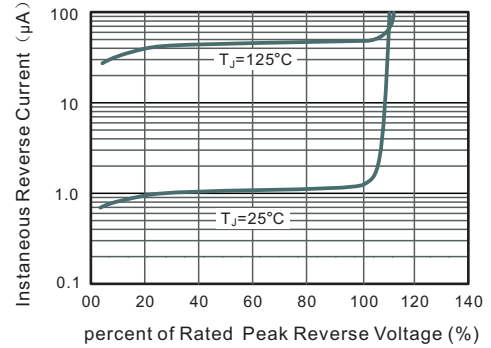
2) Measured at 1MHz and applied reverse voltage of 4V D.C

3) P.C.B. mounted with 0.5 X 0.5" (12.7 X 12.7 mm) copper pad areas.

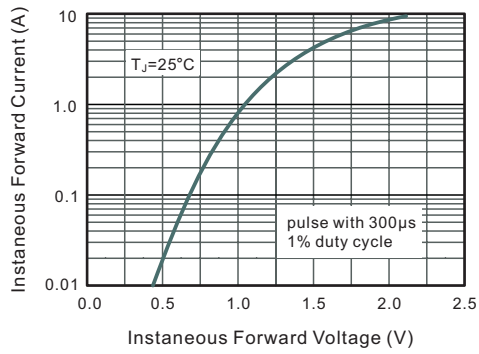
**Fig.1 Forward Current Derating Curve**



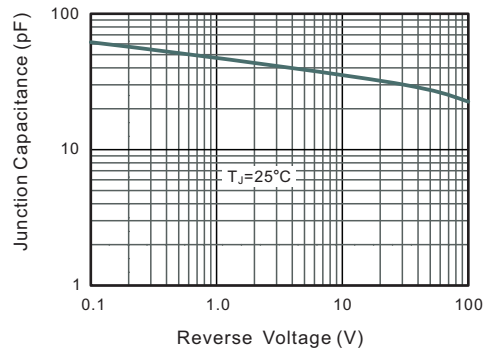
**Fig.2 Typical Reverse Characteristics**



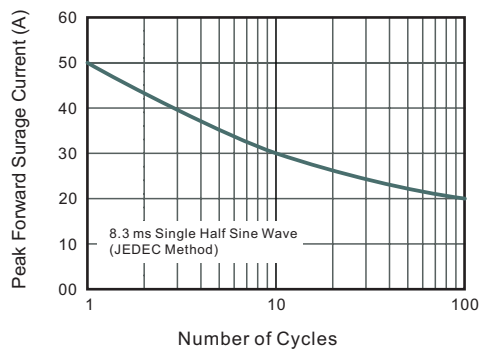
**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Junction Capacitance**



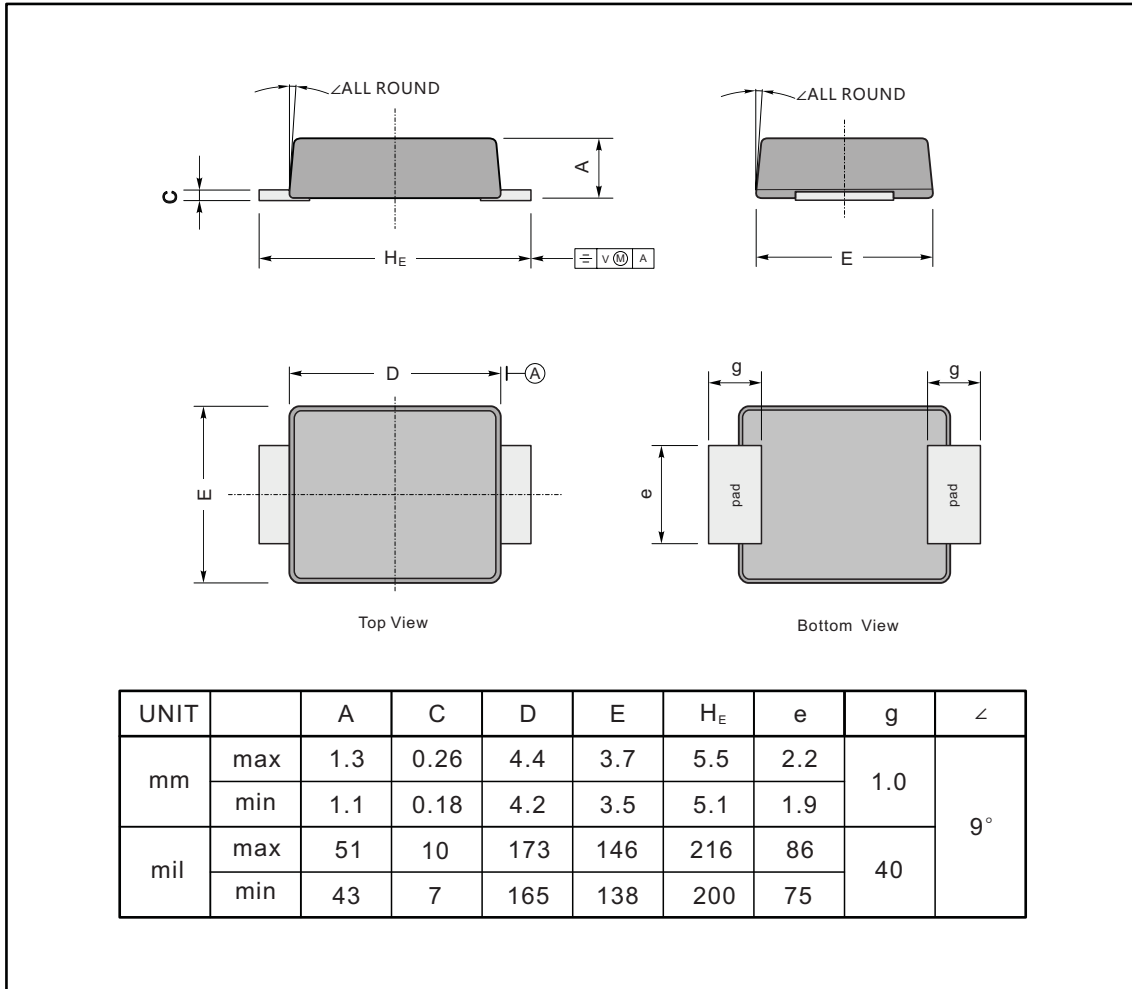
**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



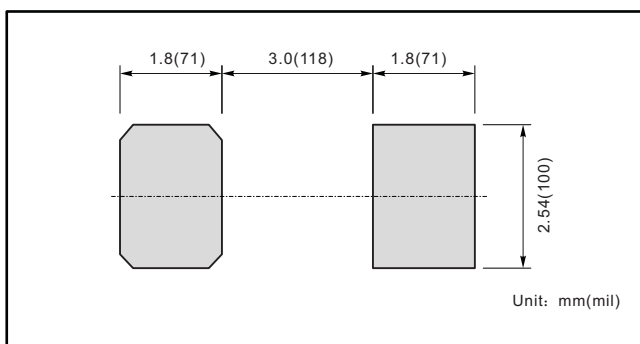
### PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SMBF



### The recommended mounting pad size



### Marking

Type number	Marking code
RS2ABF	R2AB
RS2BBF	R2BB
RS2DBF	R2DB
RS2GBF	R2GB
RS2JBF	R2JB
RS2KBF	R2KB
RS2MBF	R2MB