

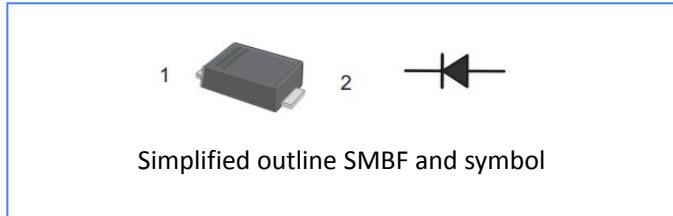
RS5ABF THRU RS5MBF

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	RS5ABF	RS5BBF	RS5DBF	RS5GBF	RS5JBF	RS5KBF	RS5MBF	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 °C	I _{F(AV)}				5				A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I _{FSM}				150				A
Maximum Forward Voltage at 1 A	V _F			1.3					V
Maximum DC Reverse Current Ta = 25 °C at Rated DC Blocking Voltage Ta = 125 °C	I _R			10					μA
Typical Junction Capacitance at VR=4V f=1M	C _j			150	45				pF
Maximum Reverse Recovery Time ⁽¹⁾	t _{rr}		150		250	500			ns
Typical Thermal Resistance ⁽²⁾	R _{θJA} R _{θJC}			40	12				°C/W
Operating and Storage Temperature Range	T _j , T _{stg}			-55 ~ +150					°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

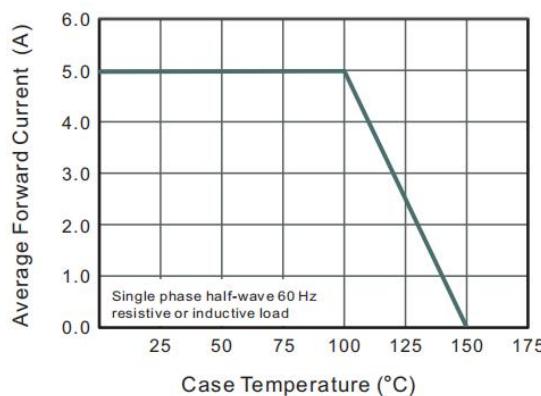


Fig.2 Typical Reverse Characteristics

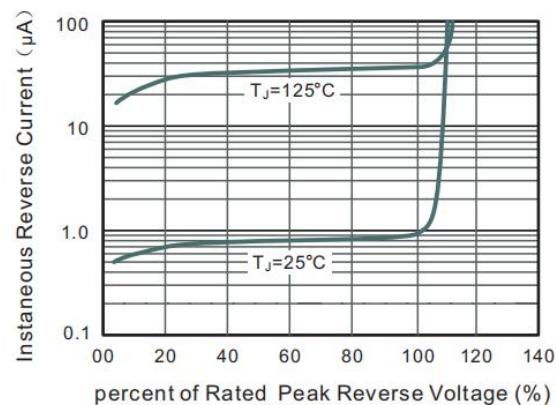


Fig.3 Typical Instantaneous Forward Characteristics

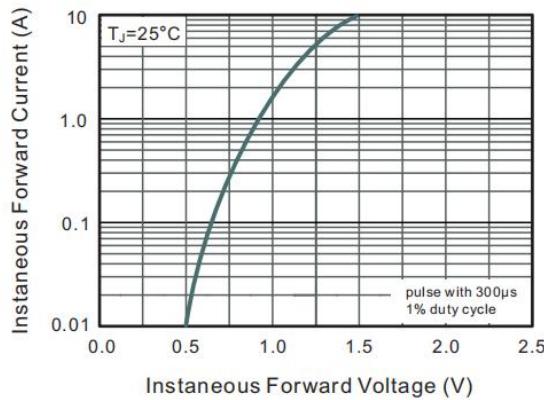


Fig.4 Typical Junction Capacitance

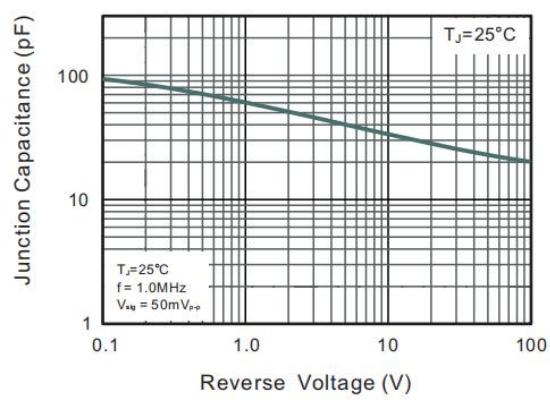
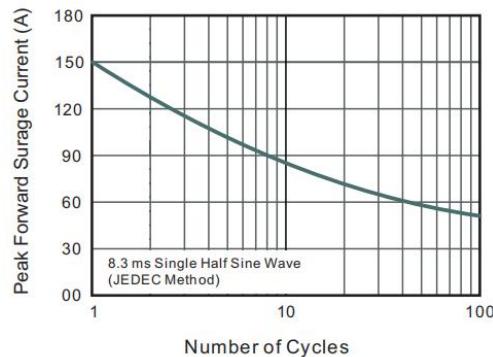


Fig.5 Maximum Non-Repetitive Peak

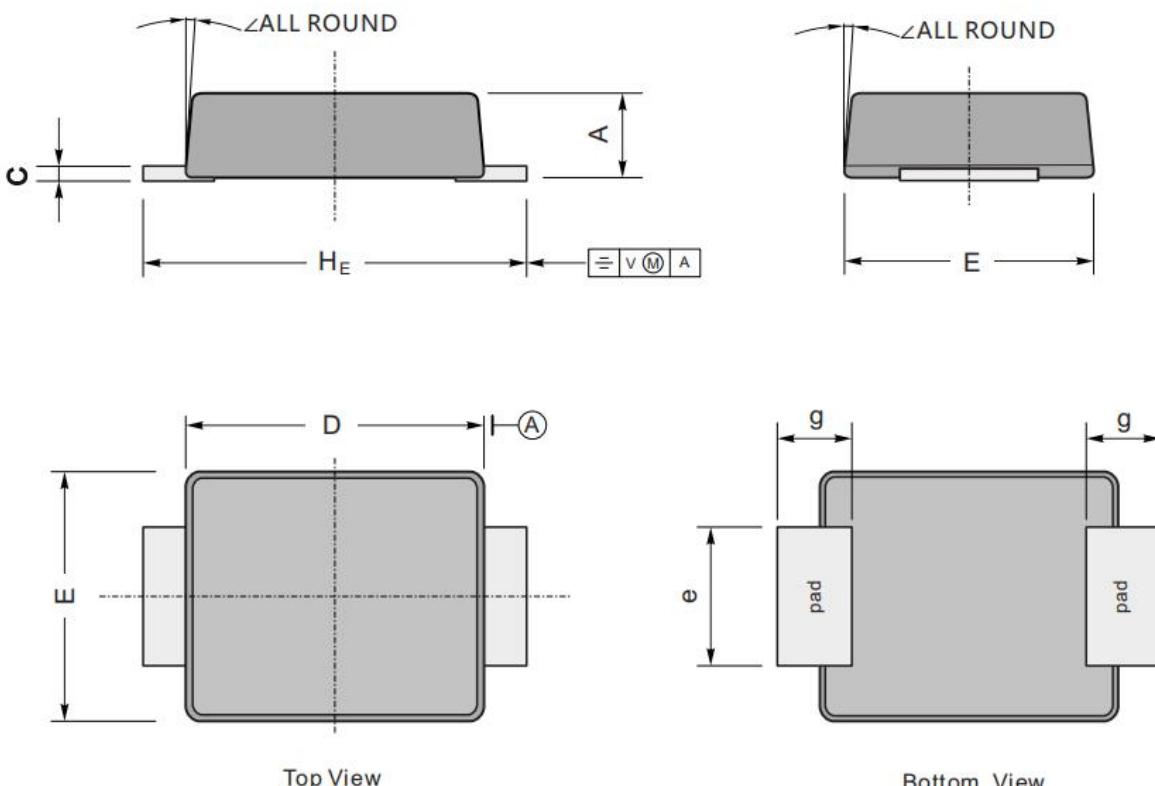
Forward Surge Current



Package Outline

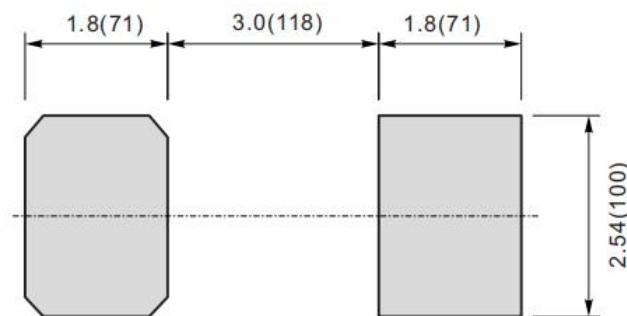
Plastic surface mounted package; 2 leads

SMBF



UNIT		A	C	D	E	e	H _E	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



Unit: mm(mil)