



# S5ABF THRU S5MBF

## Surface Mount Standard Rectifiers

Reverse Voltage - 50 to 1000 V

Forward Current - 5 A

### FEATURES

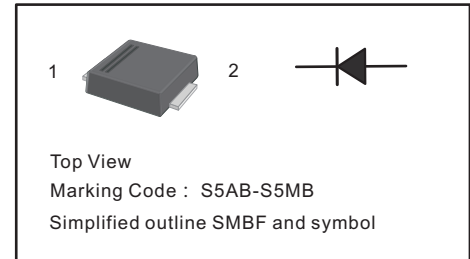
- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Lead free in comply with EU RoHS 2011/65/EU directives

### MECHANICAL DATA

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

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



### 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 %.

Parameter	Symbols	S5ABF	S5BBF	S5DBF	S5GBF	S5JBF	S5KBF	S5MBF	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	$I_{F(AV)}$	5							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	$I_{FSM}$	150							A
Maximum Instantaneous Forward Voltage at 5 A	$V_F$	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	5 150							$\mu A$
Typical Junction Capacitance <sup>(1)</sup>	$C_j$	45							pF
Typical Thermal Resistance <sup>(2)</sup>	$R_{\theta JA}$ $R_{\theta JC}$	40 12							°C/W
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 ~ +150							°C

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

(2) P.C.B. mounted with 1.0 X 1.0" (2.54 X 2.54 cm) copper pad areas.



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## Characteristic Curves ( $T_A=25^\circ\text{C}$ unless otherwise noted)

Fig.1 Forward Current Derating Curve

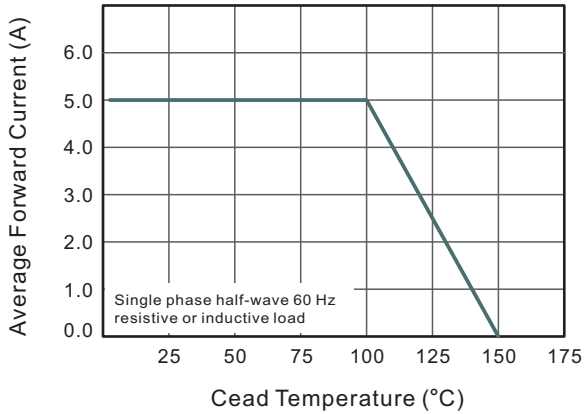


Fig.2 Typical Reverse Characteristics

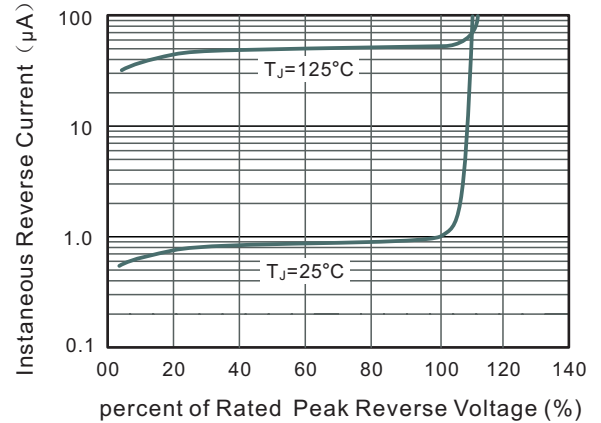


Fig.3 Typical Forward Characteristic

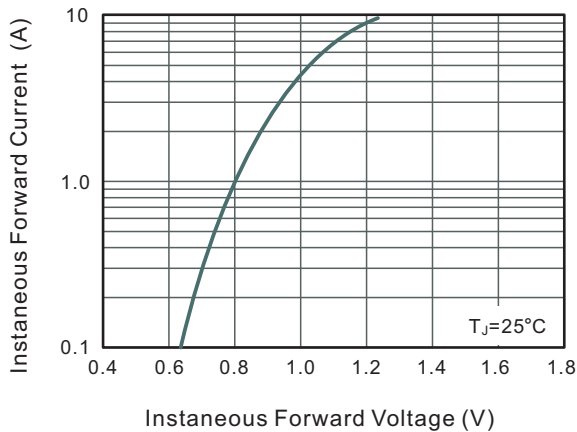


Fig.4 Typical Junction Capacitance

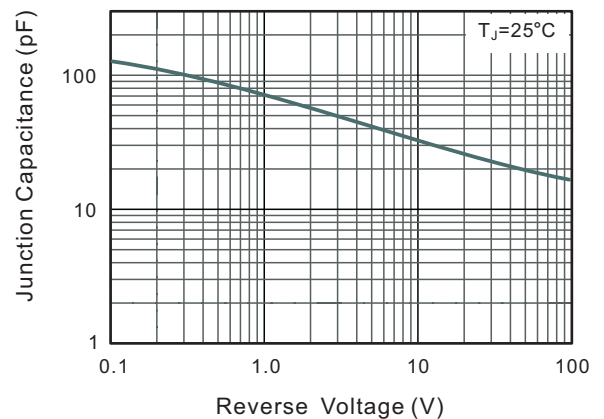
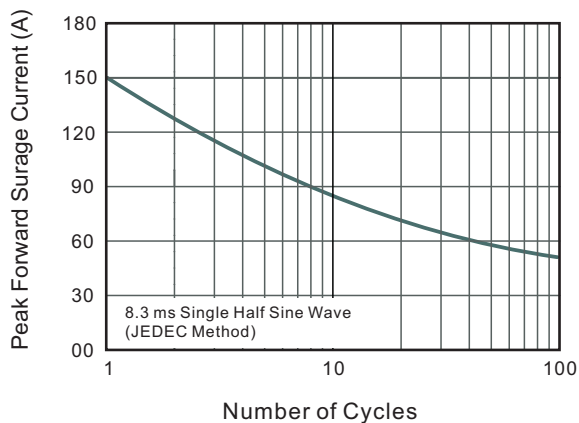


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current



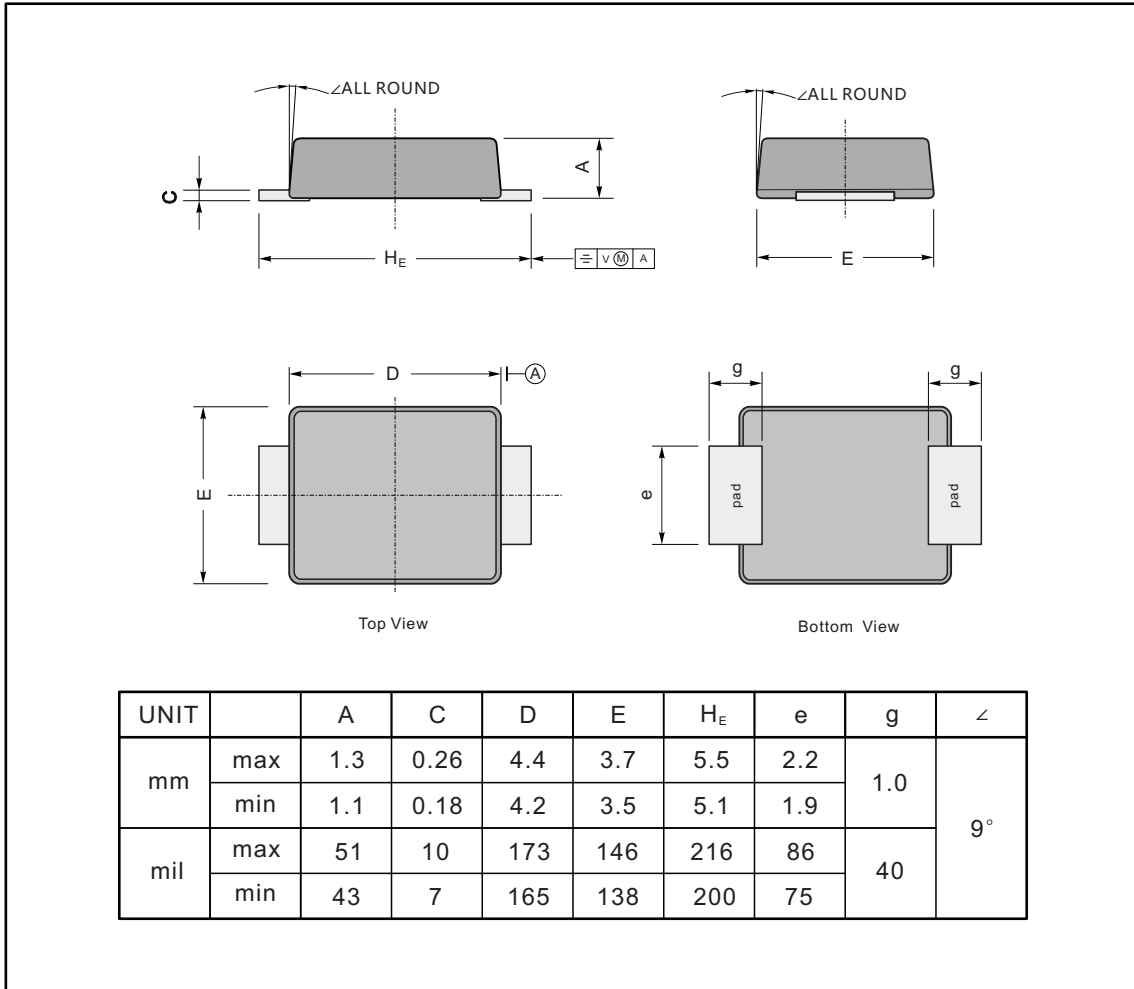


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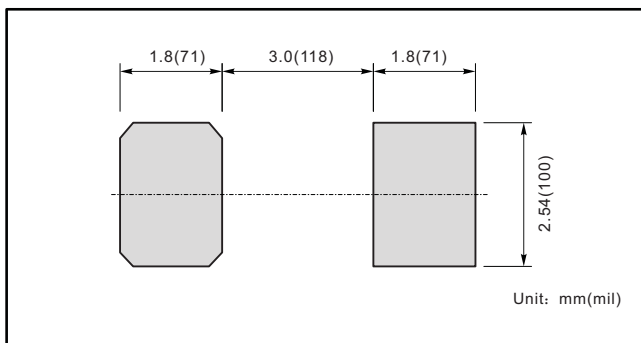
## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SMBF



### The recommended mounting pad size



### Marking

Type number	Marking code
S5ABF	S5AB
S5BBF	S5BB
S5DBF	S5DB
S5GBF	S5GB
S5JBF	S5JB
S5KBF	S5KB
S5MBF	S5MB