



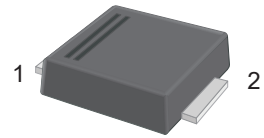
S5ABF-PJ~S5MBF-PJ

Surface Mount General Purpose Silicon Rectifiers

Features

- For surface mount applications
- Glass passivated chip junction
- Low profile package
- Easy to pick and place

SMBF



1.Cathode  2.Anode

Marking Code:

S5ABF-PJ: S5AB
S5BBF-PJ: S5BB
S5DBF-PJ: S5DB
S5GBF-PJ: S5GB
S5JBF-PJ: S5JB
S5KBF-PJ: S5KB
S5MBF-PJ: S5MB

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-PJ | S5BBF-PJ | S5DBF-PJ | S5GBF-PJ | S5JBF-PJ | S5KBF-PJ | S5MBF-PJ | 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 $T_C = 100^\circ\text{C}$ | $I_{F(AV)}$ | 5.0 | | | | | | | 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 $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$ | I_R | 5 150 | | | | | | | μA |
| Typical Junction Capacitance ^{Note1} | C_j | 45 | | | | | | | pF |
| Typical Thermal Resistance ^{Note2} | $R_{\theta JA}$ $R_{\theta JC}$ | 40 12 | | | | | | | $^\circ\text{C/W}$ |
| Junction Temperature | T_J | 150 | | | | | | | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | -55 to +150 | | | | | | | $^\circ\text{C}$ |

Note:

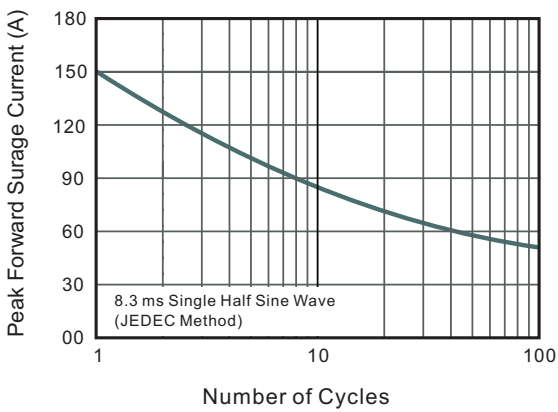
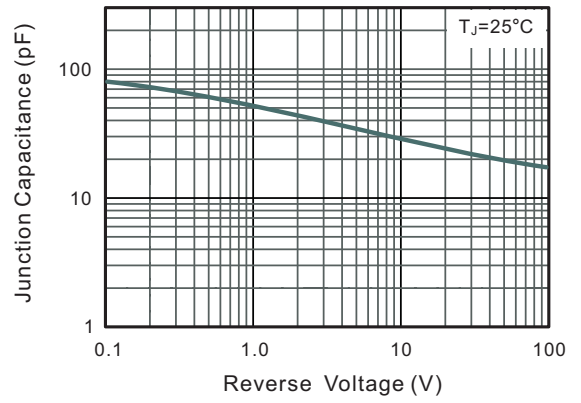
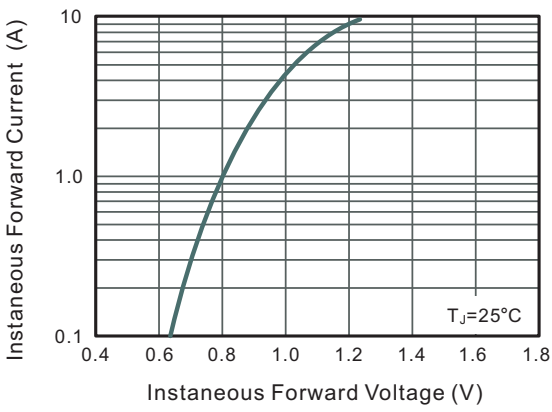
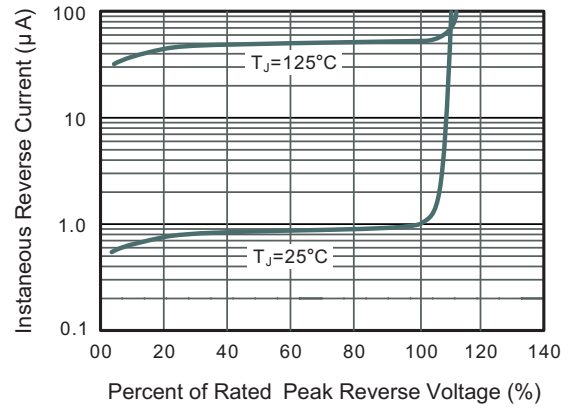
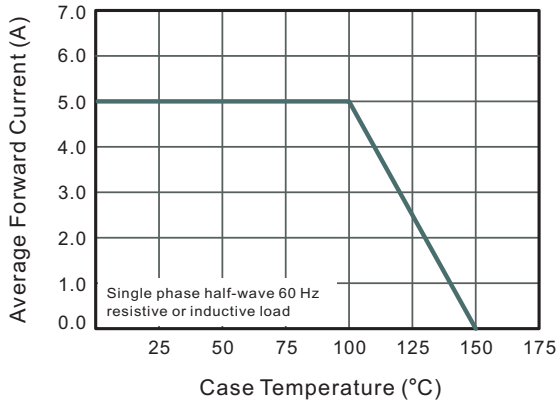
1. Measured at 1 MHz and applied reverse voltage of 4 V D.C
2. P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.



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Typical Characteristic Curves





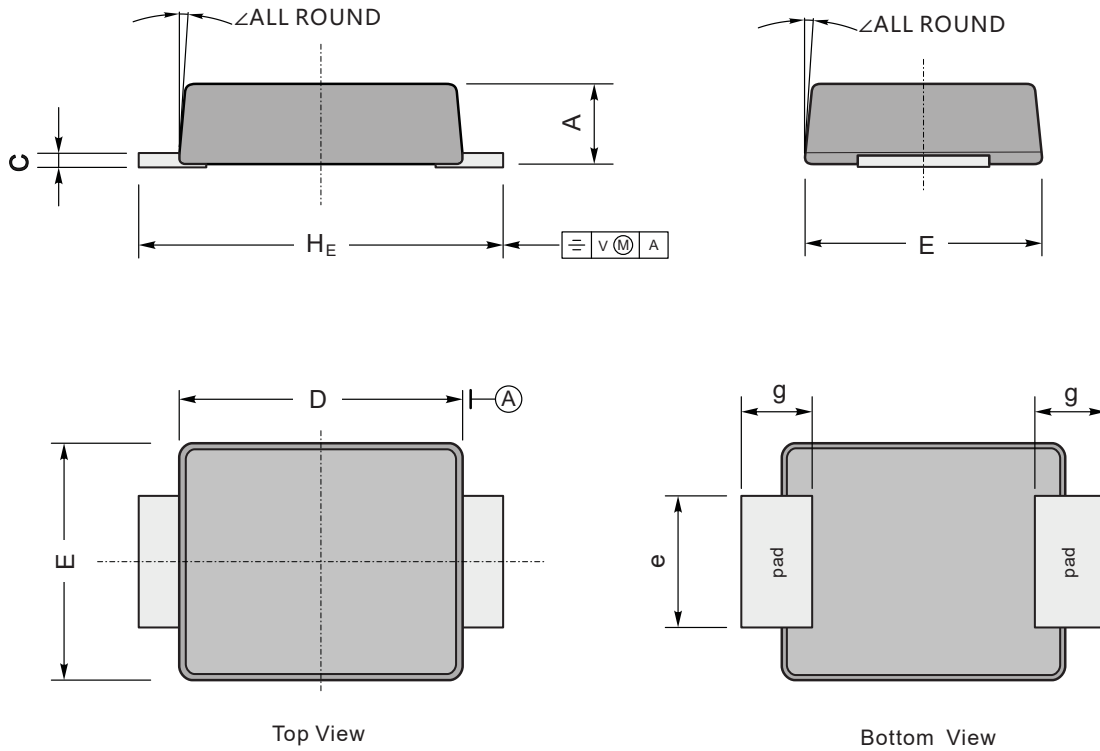
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Package Outline

SMBF

Dimensions in mm



| UNIT | | A | C | D | E | H _E | e | g | ∠ |
|------|-----|-----|------|-----|-----|----------------|-----|-----|----|
| mm | max | 1.3 | 0.26 | 4.4 | 3.7 | 5.5 | 2.2 | 1.0 | 9° |
| | min | 1.1 | 0.18 | 4.2 | 3.5 | 5.1 | 1.9 | | |
| mil | max | 51 | 10 | 173 | 146 | 216 | 86 | 40 | |
| | min | 43 | 7 | 165 | 138 | 200 | 75 | | |