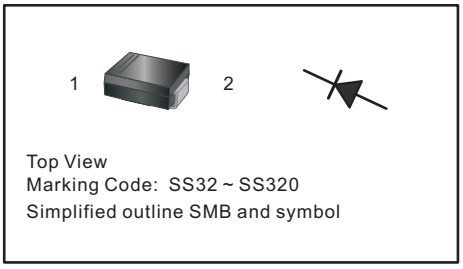
**Surface Mount Schottky Barrier Rectifier**
**Reverse Voltage - 20 to 200 V**
**Forward Current - 3 A**

**PINNING**

| PIN | DESCRIPTION |
|---|---|
| 1 | Cathode |
| 2 | Anode |




Top View
Marking Code: SS32 ~ SS320
Simplified outline SMB and symbol

## FEATURES

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

## MECHANICAL DATA

- Case: SMB
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 95mg ( 0.0034oz )

RoHS COMPLIANT
Pb-Free

### 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 | SS32B | SS34B | SS36B | SS38B | SS310B | SS312B | SS315B | SS320B | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| Maximum Repetitive Peak Reverse Voltage | $V_{RRM}$ | 20 | 40 | 60 | 80 | 100 | 120 | 150 | 200 | V |
| Maximum RMS voltage | $V_{RMS}$ | 14 | 28 | 42 | 56 | 70 | 84 | 105 | 140 | V |
| Maximum DC Blocking Voltage | $V_{DC}$ | 20 | 40 | 60 | 80 | 100 | 120 | 150 | 200 | V |
| Maximum Average Forward Rectified Current | $I_{F(AV)}$ | 3.0 | | | | | | | | A |
| Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | $I_{FSM}$ | 80 | | | | | | | | A |
| Max Instantaneous Forward Voltage at 3 A | $V_F$ | 0.55 | | 0.70 | | 0.85 | | 0.95 | | V |
| Maximum DC Reverse Current $T_a$ = 25°C<br>at Rated DC Reverse Voltage $T_a$ =100°C | $I_R$ | 0.5<br>5 | | | 0.3<br>3 | | | | | mA |
| Typical Junction Capacitance (1) | $C_j$ | 450 | | | 400 | | | | | pF |
| Typical Thermal Resistance (2) | $R_{\theta JA}$ | 60 | | | | | | | | °C/W |
| Operating Junction Temperature Range | $T_j$ | -55 ~ +150 | | | | | | | | °C |
| Storage Temperature Range | $T_{stg}$ | -55 ~ +150 | | | | | | | | °C |

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

**Fig.1 Forward Current Derating Curve**

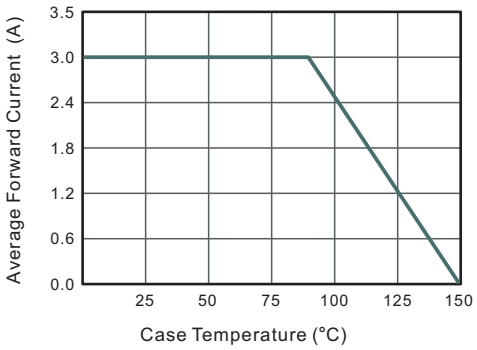



**Fig.2 Typical Reverse Characteristics**

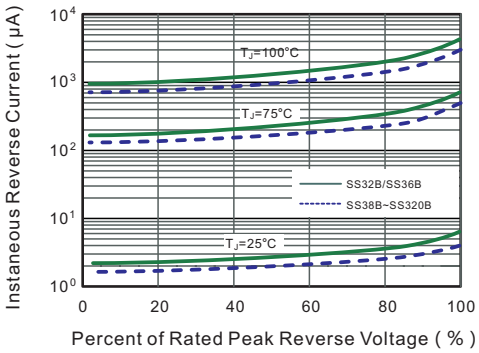



**Fig.3 Typical Forward Characteristic**

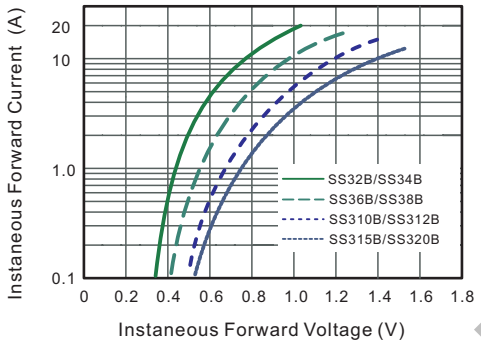



**Fig.4 Typical Junction Capacitance**

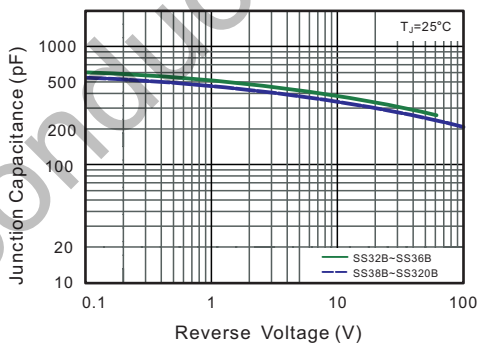



**Fig.5 Maximum Non-Repetitive Peak Forward Surage Current**

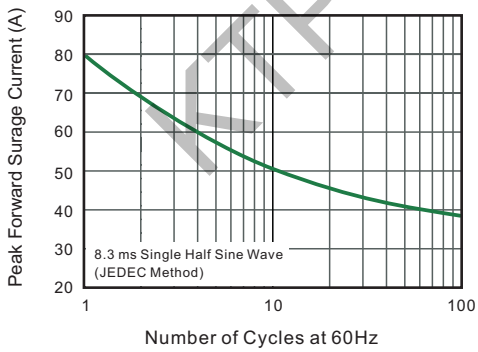
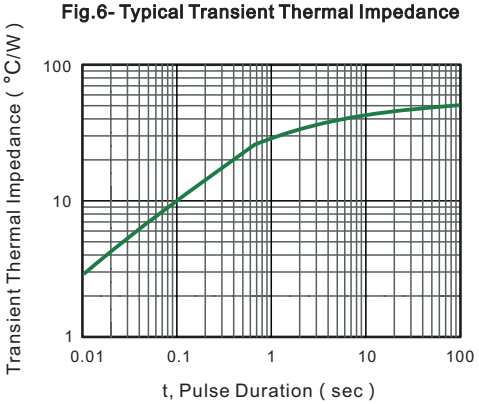
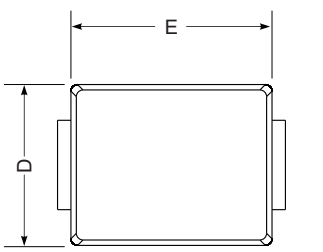


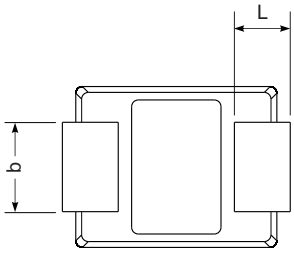

**Fig.6- Typical Transient Thermal Impedance**

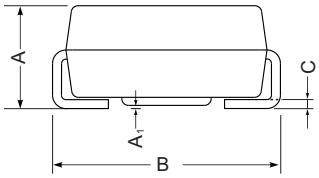


## PACKAGE OUTLINE

**Plastic surface mounted package; 2 leads** **SMB**



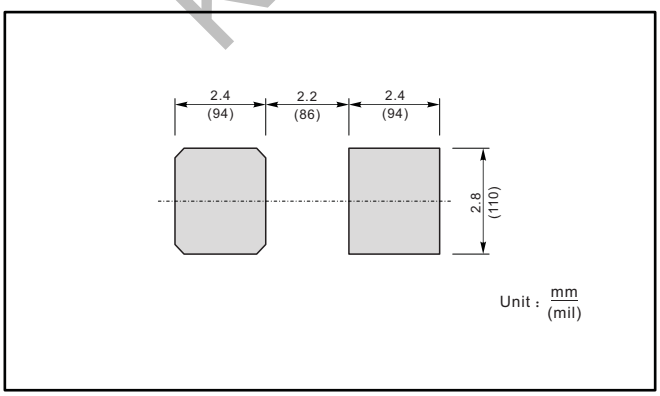




SMB mechanical data

| UNIT | | A | E | D | B | $A_1$ | L | C | b |
|---|---|---|---|---|---|---|---|---|---|
| mm | max | 2.5 | 4.70 | 3.94 | 5.5 | 0.21 | 1.5 | 0.305 | 2.2 |
| | min | 2.1 | 4.06 | 3.3 | 5.0 | 0.05 | 0.8 | 0.152 | 1.9 |
| mil | max | 98 | 185 | 155 | 216 | 8.3 | 59 | 12 | 87 |
| | min | 82 | 160 | 130 | 196 | 2.0 | 32 | 6 | 75 |



### The recommended mounting pad size




### Marking

| Type number | Marking code |
|---|---|
| SS32B | SS32 |
| SS34B | SS34 |
| SS36B | SS36 |
| SS38B | SS38 |
| SS310B | SS310 |
| SS312B | SS312 |
| SS315B | SS315 |
| SS320B | SS320 |