



Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 40V

Forward Current - 3.0A

#### FEATURES

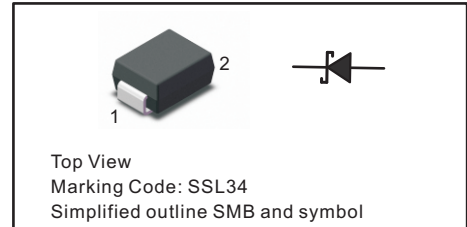
- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

#### MECHANICAL DATA

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

#### 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         | SSL34B     | Units                |
|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------|----------------------|
| Maximum Repetitive Peak Reverse Voltage                                                                                                 | $V_{RRM}$       | 40         | V                    |
| Maximum RMS voltage                                                                                                                     | $V_{RMS}$       | 28         | V                    |
| Maximum DC Blocking Voltage                                                                                                             | $V_{DC}$        | 40         | V                    |
| Maximum Average Forward Rectified Current<br>at $T_c = 100\text{ }^{\circ}\text{C}$                                                     | $I_{F(AV)}$     | 3          | A                    |
| Peak Forward Surge Current 8.3 ms Single Half<br>Sine Wave Superimposed on Rated Load                                                   | $I_{FSM}$       | 80         | A                    |
| Maximum Instantaneous Forward Voltage at 3 A                                                                                            | $V_F$           | 0.45       | V                    |
| Maximum DC Reverse Current<br>$T_a = 25\text{ }^{\circ}\text{C}$<br>at Rated DC Blocking Voltage<br>$T_a = 100\text{ }^{\circ}\text{C}$ | $I_R$           | 0.3<br>5   | mA                   |
| Typical Junction Capacitance <sup>(1)</sup>                                                                                             | $C_j$           | 450        | pF                   |
| Typical Thermal Resistance <sup>(2)</sup>                                                                                               | $R_{\theta JA}$ | 60         | $^{\circ}\text{C/W}$ |
| Operating Junction Temperature Range                                                                                                    | $T_j$           | -55 ~ +150 | $^{\circ}\text{C}$   |
| Storage Temperature Range                                                                                                               | $T_{stg}$       | -55 ~ +150 | $^{\circ}\text{C}$   |

( 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

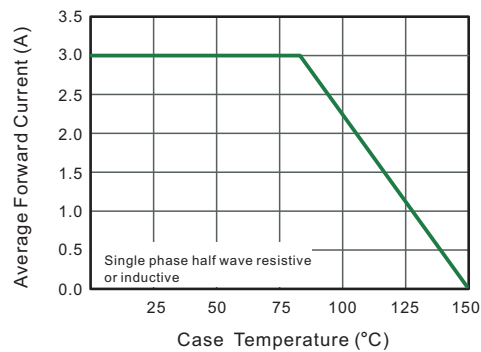


Fig.2 Typical Reverse Characteristics

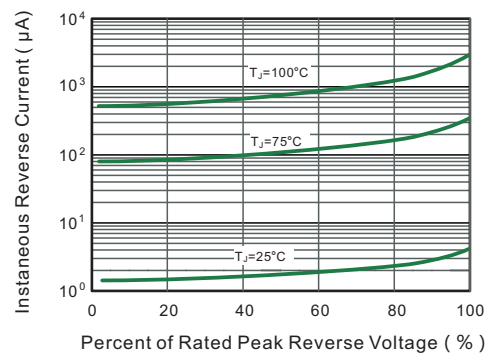


Fig.3 Typical Forward Characteristic

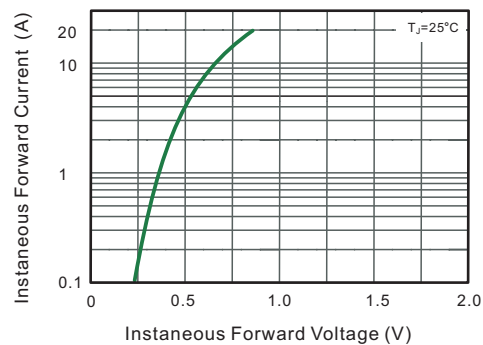


Fig.4 Typical Junction Capacitance

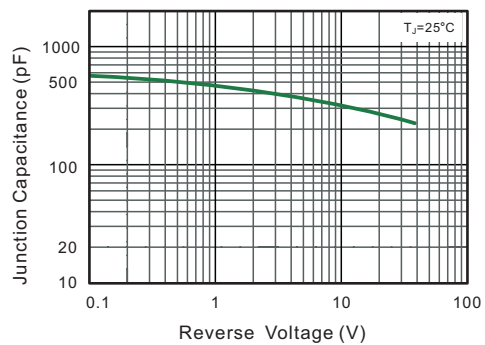


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

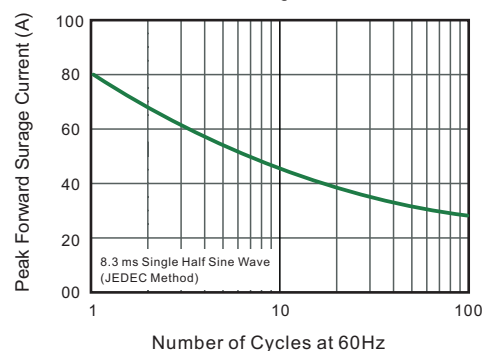
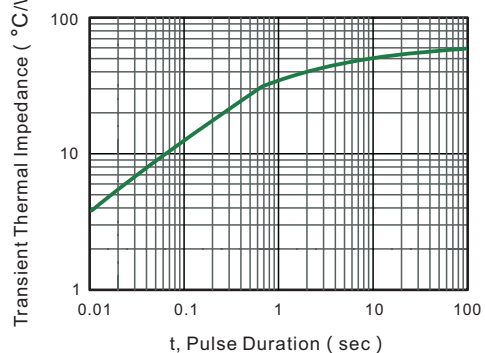


Fig.5- Typical Transient Thermal Impedance

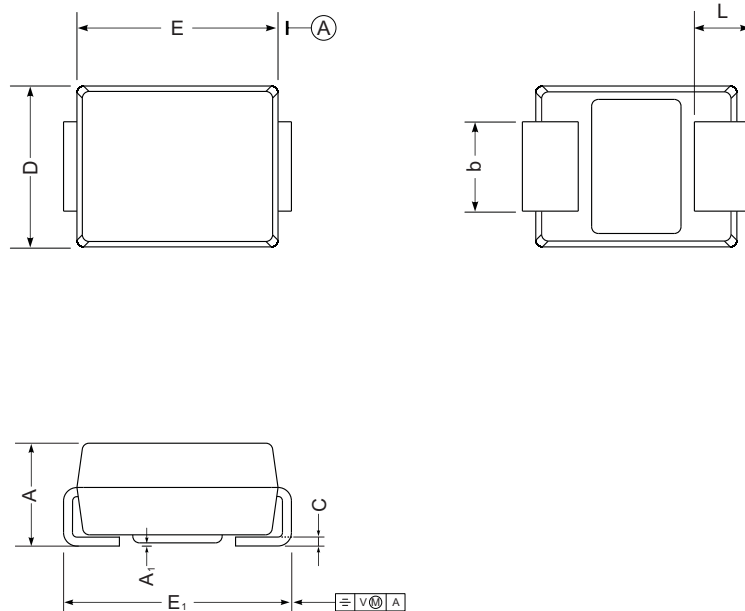




## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

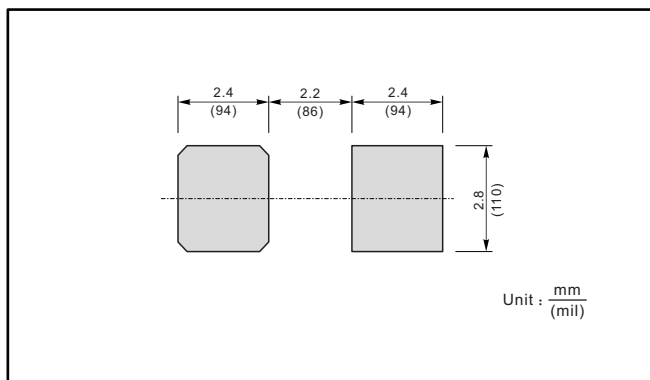
SMB



SMB mechanical data

| UNIT |     | A    | E    | D    | E <sub>1</sub> | A <sub>1</sub> | L   | C     | b   |
|------|-----|------|------|------|----------------|----------------|-----|-------|-----|
| mm   | max | 2.44 | 4.70 | 3.94 | 5.59           | 0.20           | 1.5 | 0.305 | 2.2 |
|      | min | 2.13 | 4.06 | 3.3  | 5.08           | 0.05           | 0.8 | 0.152 | 1.9 |
| mil  | max | 96   | 185  | 155  | 220            | 7.9            | 59  | 12    | 87  |
|      | min | 84   | 160  | 130  | 200            | 2.0            | 32  | 6     | 75  |

## The recommended mounting pad size



## Marking

| Type number | Marking code |
|-------------|--------------|
| SSL34B      | SSL34        |