

**Surface Mount Schottky Barrier Rectifier**
**Reverse Voltage - 20 to 200 V**
**Forward Current - 3 A**
**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
- ◆Lead free in comply with EU RoHS 2011/65/EU directives

**MECHANICAL DATA**

- ◆Case: DO-214AA/SMB
- ◆Terminals: Solderable per MIL-STD-750, Method 2026
- ◆Approx. Weight: 0.095g / 0.003oz

**Absolute Maximum Ratings and Electrical characteristics**

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, 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     |
| Maximum Instantaneous Forward Voltage at 3 A                                                                        | $V_F$           | 0.55       | 0.70  |       | 0.85     |        | 0.95   |        | V      |       |
| Maximum Instantaneous Reverse Current<br>at Rated DC Reverse Voltage<br>$T_A = 25^{\circ}C$<br>$T_A = 100^{\circ}C$ | $I_R$           | 0.5<br>5   |       |       | 0.3<br>3 |        |        |        | mA     |       |
| Typical Junction Capacitance <sup>(1)</sup>                                                                         | $C_j$           | 450        |       |       | 400      |        |        |        | pF     |       |
| Typical Thermal Resistance <sup>(2)</sup>                                                                           | $R_{\theta JA}$ | 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.

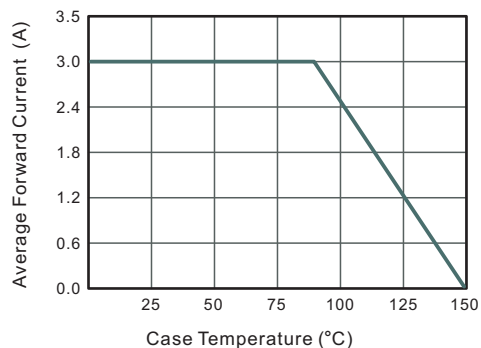
**Pinning**

| 1.Cathode                                                                           | 2.Anode |
|-------------------------------------------------------------------------------------|---------|
|  |         |
| <b>DO-214AA/SMB</b>                                                                 |         |

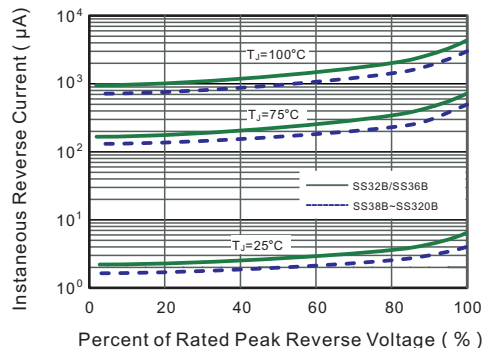
**Marking Code**

|               |                  |
|---------------|------------------|
| <b>SS32B</b>  | <b>YFW SS32</b>  |
| <b>SS34B</b>  | <b>YFW SS34</b>  |
| <b>SS36B</b>  | <b>YFW SS36</b>  |
| <b>SS38B</b>  | <b>YFW SS38</b>  |
| <b>SS310B</b> | <b>YFW SS310</b> |
| <b>SS312B</b> | <b>YFW SS312</b> |
| <b>SS315B</b> | <b>YFW SS315</b> |
| <b>SS320B</b> | <b>YFW SS320</b> |

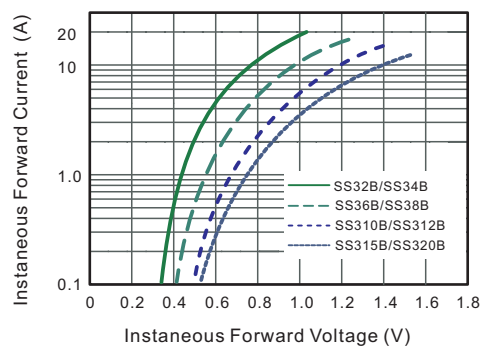
**Fig.1 Forward Current Derating Curve**



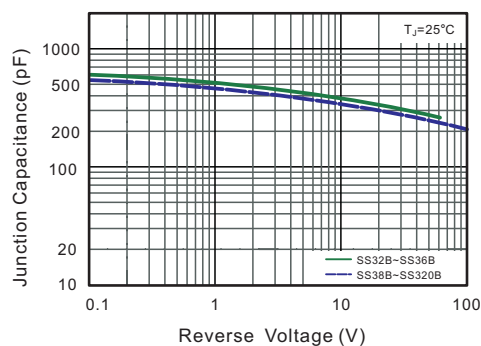
**Fig.2 Typical Reverse Characteristics**



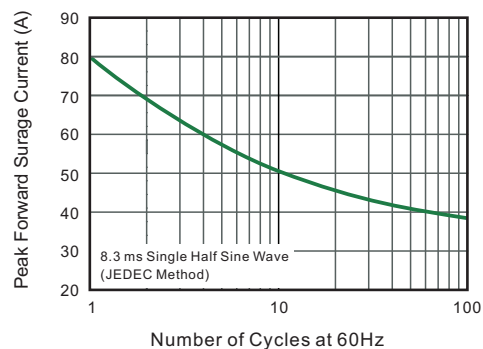
**Fig.3 Typical Forward Characteristic**



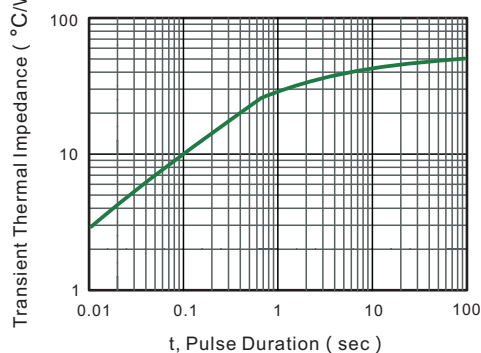
**Fig.4 Typical Junction Capacitance**



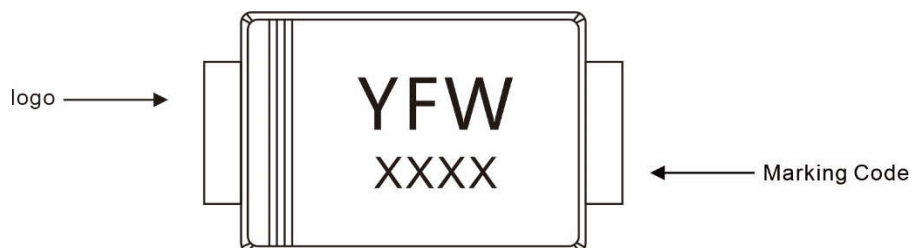
**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



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



## Marking Diagram



## Ordering information

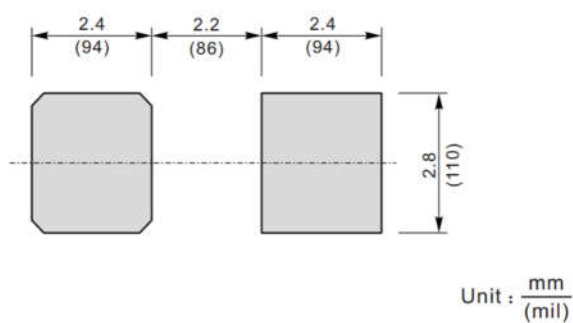
| Package      | Packing Description | Packing Quantity             |
|--------------|---------------------|------------------------------|
| DO-214AA SMB | Tape/Reel, 13" reel | 3000PCS/Reel 30000PCS/Carton |

## Package Dimensions

### DO-214AA SMB

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

## The recommended mounting pad size



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