

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 40 to 200 V

Forward Current - 10 A

### FEATURES

- ◆ The plastic package carries Underwriters Laboratory
- ◆ Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:  
260 C/10 seconds at terminals

### MECHANICAL DATA

- ◆ Case: JEDEC DO-214AA molded plastic body
- ◆ Terminals: leads solderable per MIL-STD-750,  
Method 2026
- ◆ Polarity: Color band denotes cathode end
- ◆ Mounting Position: Any
- ◆ Weight: 0.003 ounce, 0.093 grams


### Maximum Ratings & Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

| Parameter   | Symbols         | SS1040B    | SS1060B | SS10100B   | SS10150B | SS10200B | Units         |
|---|-----------------|------------|---------|------------|----------|----------|---------------|
| Maximum Repetitive Peak Reverse Voltage   | $V_{RRM}$       | 40         | 60      | 100        | 150      | 200      | V             |
| Maximum RMS voltage   | $V_{RMS}$       | 28         | 42      | 70         | 105      | 140      | V             |
| Maximum DC Blocking Voltage   | $V_{DC}$        | 40         | 60      | 100        | 150      | 200      | V             |
| Maximum Average Forward Rectified Current at  | $I_{F(AV)}$     | 10         |         |            |          |          | A             |
| Non-repetitive peak forward surge current<br>8.3 ms singlehalf sine-wave  | $I_{FSM}$       | 250        |         |            |          |          | A             |
| Maximum Instantaneous Forward Voltage at 10 A   | $V_F$           | 0.55       | 0.7     | 0.85       | 0.95     |          | V             |
| Typical thermal resistance (Note 1)   | $R_{\theta JA}$ | 85         |         |            |          |          | °C/W          |
|   | $R_{\theta JL}$ | 25         |         |            |          |          | °C/W          |
| Maximum Instantaneous Reverse Current<br>at Rated DC Reverse Voltage<br>$T_A = 25^\circ C$<br>$T_A = 100^\circ C$ | $I_R$           | 500<br>20  |         | 100<br>10  |          |          | $\mu A$<br>mA |
| Typical Junction Capacitance  | $C_j$           | 400        |         |            |          |          | pF            |
| Operating Junction Temperature Range  | $T_j$           | -55 ~ +125 |         | -55 ~ +150 |          |          | °C            |
| Storage Temperature Range   | $T_{stg}$       | -55 ~ +150 |         |            |          |          | °C            |

Note: Thermal resistance from junction to ambient , PCB mounted.

### Pinning

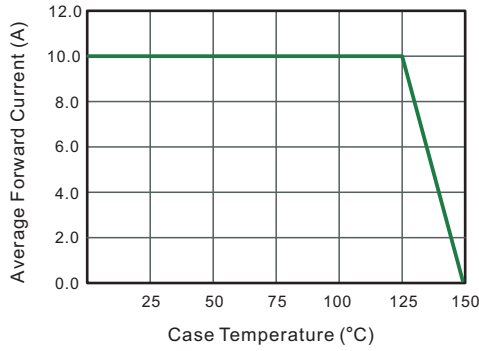
| 1.Cathode   | 2.Anode |
|---|---------|
|  |         |
| <b>DO-214AA/SMB</b>   |         |

### Marking Code

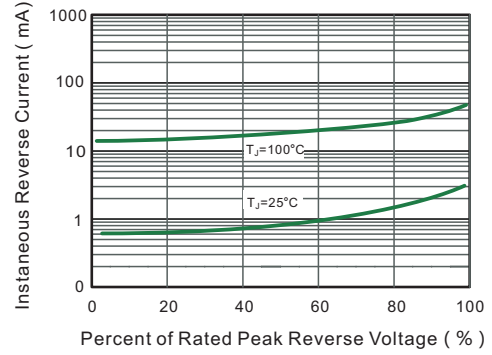
|          |             |
|----------|-------------|
| SS1040B  | YFW SS1040  |
| SS1060B  | YFW SS1060  |
| SS10100B | YFW SS10100 |
| SS10150B | YFW SS10150 |
| SS10200B | YFW SS10200 |

**Characteristic Curves**

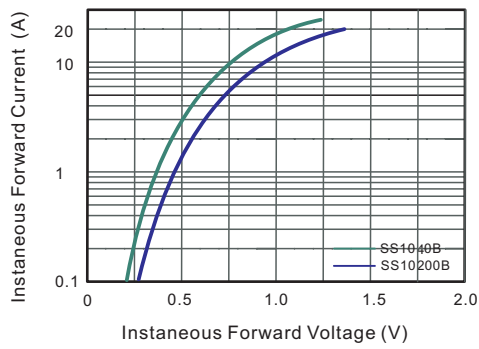
**Fig.1 Forward Current Derating Curve**



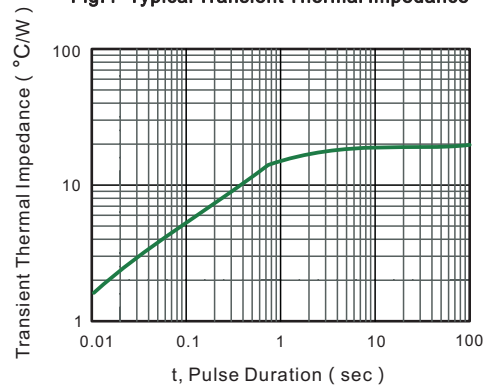
**Fig.2 Typical Reverse Characteristics**



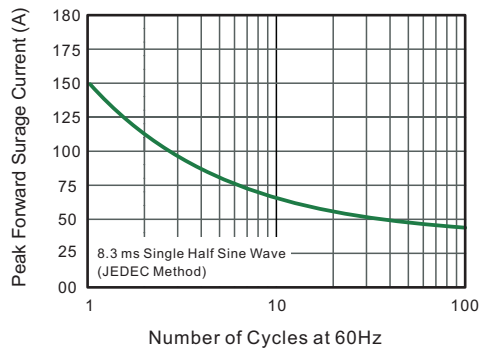
**Fig.3 Typical Forward Characteristic**



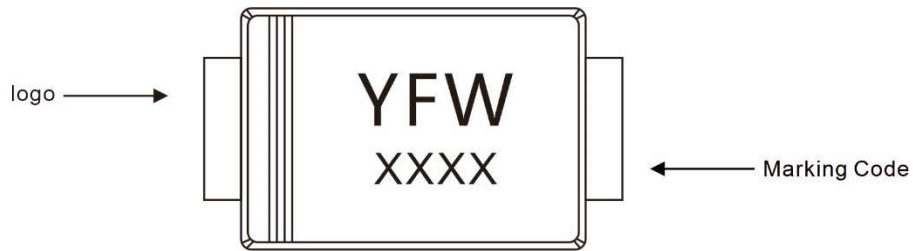
**Fig.4- Typical Transient Thermal Impedance**



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



**Marking Diagram**



**Ordering information**

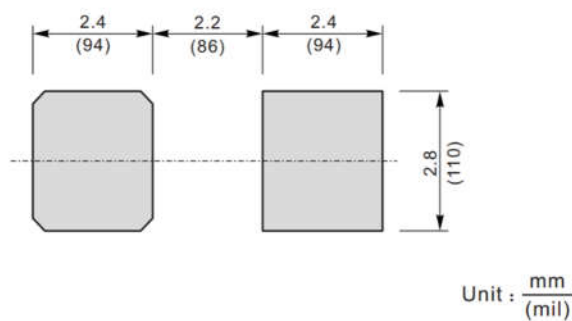
| Package      | Packing Description | Packing Quantity             |
|--------------|---------------------|------------------------------|
| DO-214AA SMB | Tape/Reel, 13" reel | 3000PCS/Reel 30000PCS/Carton |

**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**



## Disclaimer

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