

## Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 20 to 200 V

Forward Current - 10 A

### FEATURES

- ◆The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆For surface mounted applications
- ◆Built-in strain relief,ideal for automated placement
- ◆Low reverse leakage
- ◆High forward surge current capability
- ◆High temperature soldering guaranteed  
250 °C/10 seconds at terminals

### MECHANICAL DATA

- ◆Case: DO-214AB/SMC
- ◆Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
- ◆Polarity : Polarity symbol marking on body
- ◆Mounting Position : Any
- ◆Weight : 0.003 ounce, 0.092 grams

### Pinning

| 1.Cathode                                                                           | 2.Anode |
|-------------------------------------------------------------------------------------|---------|
|  |         |
| DO-214AB/SMC                                                                        |         |

### Marking Code

|          |             |
|----------|-------------|
| SS1020C  | YFW SS1020  |
| SS1040C  | YFW SS1040  |
| SS1045C  | YFW SS1045  |
| SS1060C  | YFW SS1060  |
| SS1080C  | YFW SS1080  |
| SS10100C | YFW SS10100 |
| SS10150C | YFW SS10150 |
| SS10200C | YFW SS10200 |

### 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            | SS1020C    | SS1040C | SS1045C | SS1060C | SS1080C    | SS10100C | SS10150C | SS10200C | Units |
|-------------------------------------------------------------------------------------------------------------------------|--------------------|------------|---------|---------|---------|------------|----------|----------|----------|-------|
| Maximum Repetitive Peak Reverse Voltage                                                                                 | V <sub>RRM</sub>   | 20         | 40      | 45      | 60      | 80         | 100      | 150      | 200      | V     |
| Maximum RMS voltage                                                                                                     | V <sub>RMS</sub>   | 14         | 28      | 32      | 42      | 56         | 70       | 105      | 140      | V     |
| Maximum DC Blocking Voltage                                                                                             | V <sub>DC</sub>    | 20         | 40      | 45      | 60      | 80         | 100      | 150      | 200      | V     |
| Maximum Average Forward Rectified Current T <sub>L</sub> =100°C                                                         | I <sub>F(AV)</sub> | 10.0       |         |         |         |            |          |          |          | A     |
| Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load (JEDEC method)                       | I <sub>FSM</sub>   | 175        |         |         |         |            |          |          |          | A     |
| Maximum Instantaneous Forward Voltage at 10A                                                                            | V <sub>F</sub>     | 0.55       |         |         | 0.70    | 0.85       |          | 0.95     |          | V     |
| Maximum Instantaneous Reverse Current<br>T <sub>A</sub> = 25°C<br>at Rated DC Reverse Voltage<br>T <sub>A</sub> = 125°C | I <sub>R</sub>     | 0.5<br>50  |         |         |         | 0.05<br>10 |          |          |          | mA    |
| Typical Thermal Resistance <sup>(2)</sup>                                                                               | R <sub>θJA</sub>   | 60         |         |         |         |            |          |          |          | °C/W  |
| Operating Junction Temperature Range                                                                                    | T <sub>j</sub>     | -55 ~ +150 |         |         |         |            |          |          |          | °C    |
| Storage Temperature Range                                                                                               | T <sub>stg</sub>   | -55 ~ +150 |         |         |         |            |          |          |          | °C    |

## Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

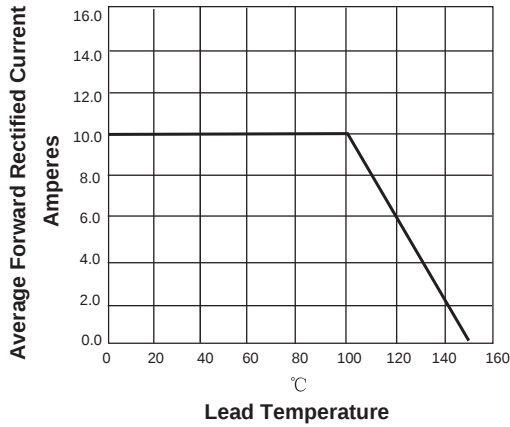


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

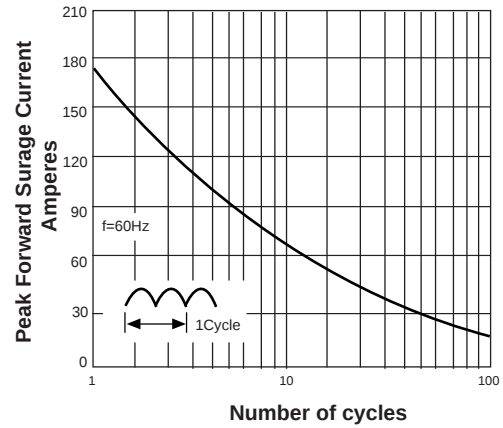


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

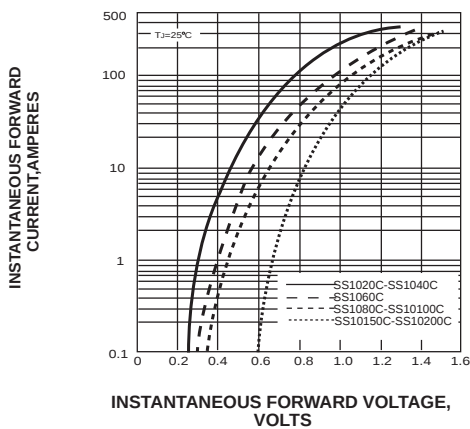
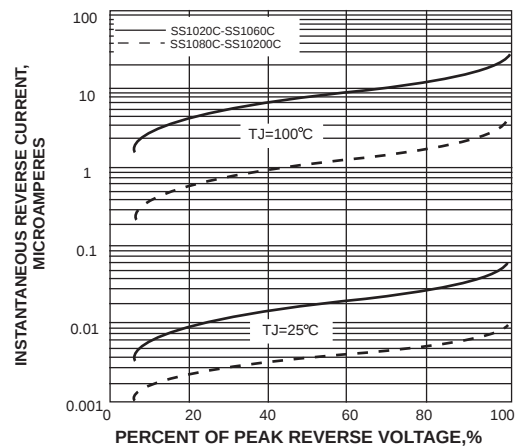
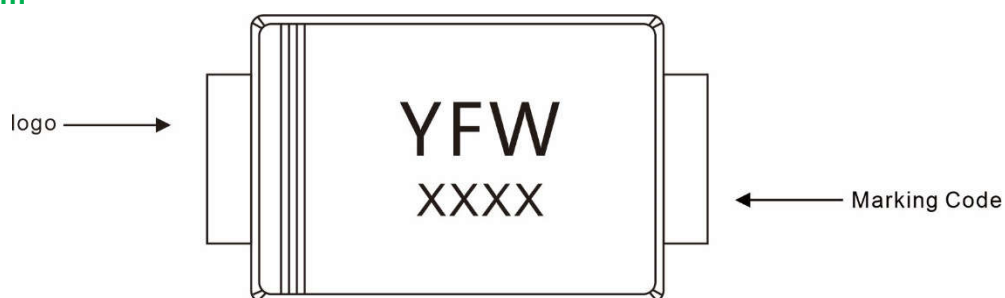


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



## Marking Diagram



## Ordering information

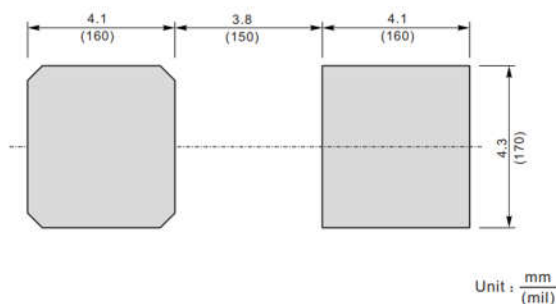
| Package      | Packing Description | Packing Quantity             |
|--------------|---------------------|------------------------------|
| DO-214AB SMC | Tape/Reel, 13" reel | 3000PCS/Reel 30000PCS/Carton |

## Package Dimensions

### DO-214AB SMC

| Dim.           | Millimeter(mm) |      | mil  |      |
|----------------|----------------|------|------|------|
|                | Min.           | Max. | Min. | Max. |
| A              | 2.00           | 2.62 | 79   | 103  |
| E              | 6.5            | 7.0  | 256  | 276  |
| D              | 5.6            | 6.2  | 220  | 244  |
| E <sub>1</sub> | 7.6            | 8.0  | 299  | 315  |
| A <sub>1</sub> | 0.05           | 0.21 | 2.0  | 8.3  |
| C              | 0.15           | 0.31 | 5.9  | 12   |
| L              | 0.9            | 1.6  | 35   | 63   |
| b              | 2.75           | 3.25 | 108  | 128  |

## The recommended mounting pad size



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