



# SS52BF THRU SS510BF

## 5.0 AMP SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

### FEATURES

- \* Ideal for surface mount applications
- \* Easy pick and place
- \* Built-in strain relief
- \* Low forward voltage drop

### MECHANICAL DATA

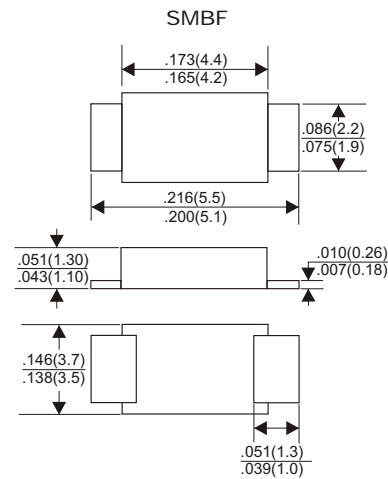
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Metallurgically bonded construction
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any

### VOLTAGE RANGE

20 to 100 Volts

### CURRENT

5.0 Ampere



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.  
Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

| TYPE NUMBER                                                                                        | SS52BF     | SS53BF | SS54BF | SS55BF     | SS56BF | SS58BF | SS59BF | SS510BF | UNITS      |      |
|----------------------------------------------------------------------------------------------------|------------|--------|--------|------------|--------|--------|--------|---------|------------|------|
| Maximum Recurrent Peak Reverse Voltage                                                             | 20         | 30     | 40     | 50         | 60     | 80     | 90     | 100     | V          |      |
| Maximum RMS Voltage                                                                                | 14         | 21     | 28     | 35         | 42     | 56     | 63     | 70      | V          |      |
| Maximum DC Blocking Voltage                                                                        | 20         | 30     | 40     | 50         | 60     | 80     | 90     | 100     | V          |      |
| Maximum Average Forward Rectified Current                                                          |            |        |        |            |        |        |        |         |            |      |
| At T <sub>L</sub> =100°C                                                                           |            |        |        |            |        |        |        |         | 5.0        | A    |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) |            |        |        |            |        |        |        |         | 120        | A    |
| Maximum Instantaneous Forward Voltage at 5.0A                                                      | 0.55       |        | 0.70   |            | 0.85   |        |        |         | V          |      |
| Maximum DC Reverse Current                                                                         | Ta=25°C    |        |        |            | 0.2    |        |        |         | mA         |      |
| at Rated DC Blocking Voltage                                                                       | Ta=100°C   |        |        |            | 20     |        |        |         | mA         |      |
| Typical Junction Capacitance (Note1)                                                               |            |        |        |            |        |        |        |         | 380        | pF   |
| Typical Thermal Resistance R <sub>JL</sub> (Note 2)                                                |            |        |        |            |        |        |        |         | 10         | °C/W |
| Operating Temperature Range T <sub>J</sub>                                                         | -65 — +125 |        |        | -65 — +150 |        |        |        |         |            | °C   |
| Storage Temperature Range T <sub>STG</sub>                                                         |            |        |        |            |        |        |        |         | -65 — +150 | °C   |

#### NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Lead.

## RATING AND CHARACTERISTIC CURVES (SS52BF THRU SS510BF)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

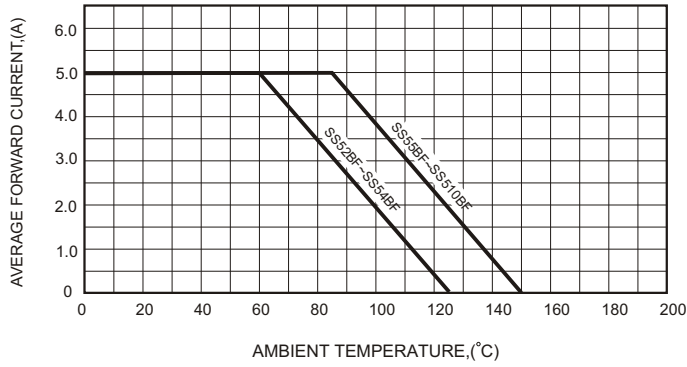


FIG.2-TYPICAL FORWARD CHARACTERISTICS

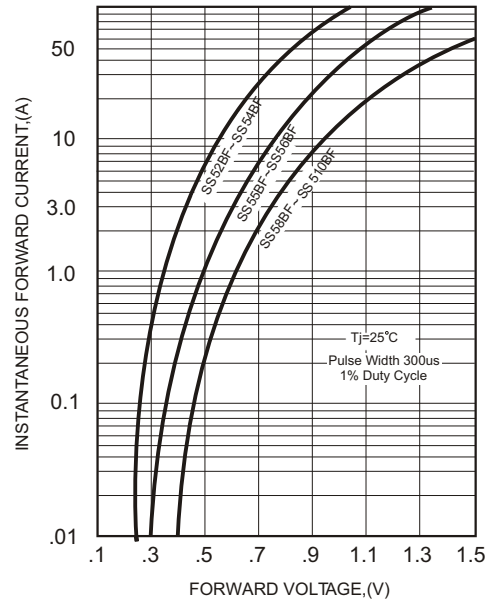


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

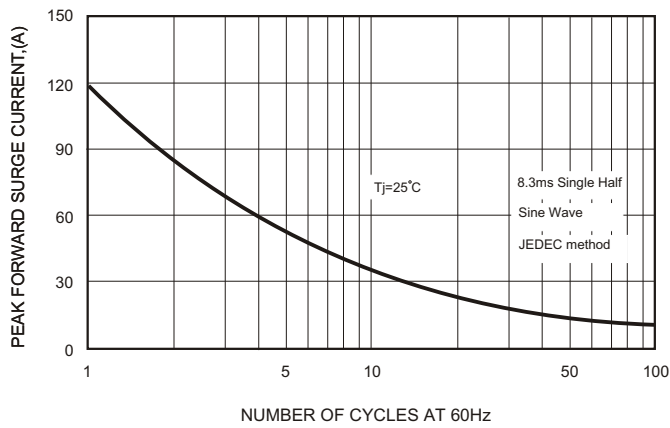


FIG.4-TYPICAL JUNCTION CAPACITANCE

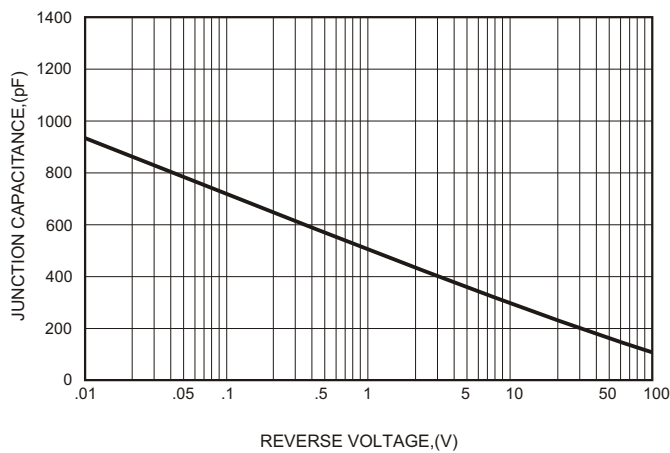
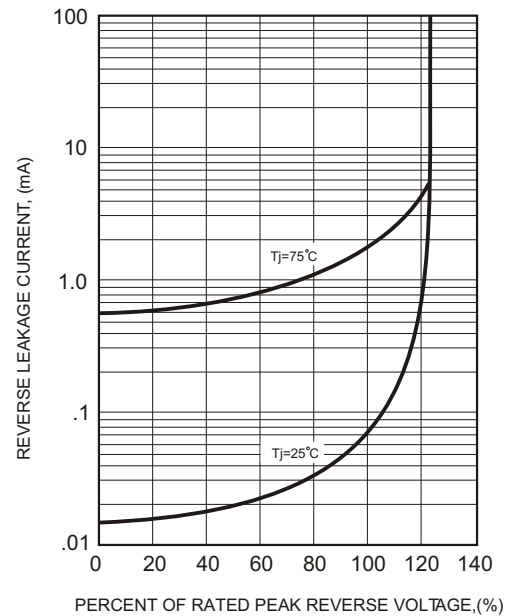


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



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