

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 200 Volts Forward Current - 5.0 Amperes

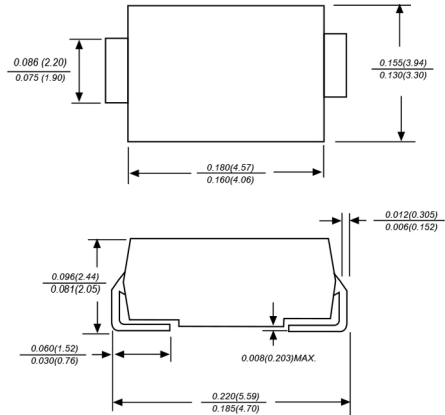
### FEATURES

- Metal-Semiconductor junction with gard ring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0
- For use in low vlotage, high frequency inverters, free wheeling, and polarity protection applications

### MECHANICAL DATA

- Case: Molded Plastic
- Polarity: Color band denotes cathode
- Weight :0.09 grams

#### DO-214AA



Dimensions in inches and (millimeters)

### 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 current derate by 20%.

| CHARACTERISTICS                                                                                         | SYMBOL | SS52B       | SS53B | SS54B | SS55B     | SS56B | SS58B | SS510B | SS515B | SS520B | UNIT |
|---------------------------------------------------------------------------------------------------------|--------|-------------|-------|-------|-----------|-------|-------|--------|--------|--------|------|
| Maximum Recurrent Peak Reverse Voltage                                                                  | VRRM   | 20          | 30    | 40    | 50        | 60    | 80    | 100    | 150    | 200    | V    |
| Maximum RMS Voltage                                                                                     | VRMS   | 14          | 21    | 28    | 35        | 42    | 56    | 70     | 105    | 140    | V    |
| Maximum DC Blocking Voltage                                                                             | VDC    | 20          | 30    | 40    | 50        | 60    | 80    | 100    | 150    | 200    | V    |
| Maximum Average Forward Rectified Current<br>0.375" (9.5mm) Lead Lengths                                | IAV)   | 5.0         |       |       |           |       |       |        |        |        | A    |
| Peak Forward Surage Current<br>8.3ms Single Half Sine-Wave<br>Super Imposed on Rated Load(JEDEC Method) | IFSM   | 100         |       |       |           |       |       |        |        |        | A    |
| Maximum Forward Voltage at 5.0A DC                                                                      | VF     | 0.55        |       |       | 0.7       |       | 0.85  |        | 0.95   |        | V    |
| Maximum DC Reverse Current @TJ=25℃<br>at Rated DC Bolcking Voltage @TJ=100℃                             | IR     | 0.2<br>20   |       |       | 1.0<br>50 |       |       |        |        |        | mA   |
| Typical Junction Capacitance (Note1)                                                                    | CJ     | 500         |       |       | 350       |       |       |        |        |        | pF   |
| Typical Thermal Resistance (Note2)                                                                      | RθJA   | 15          |       |       | 10        |       |       |        |        |        | ℃/W  |
| Operating Temperature Range                                                                             | TJ     | -55 to +150 |       |       |           |       |       |        |        |        | ℃    |
| Storage Temperature Range                                                                               | TSTG   | -55 to +150 |       |       |           |       |       |        |        |        | ℃    |

NOTES: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

2. Thermal resistance junction to ambient,

## RATINGS AND CHARACTERISTIC CURVES

FIG. 1 – FORWARD CURRENT DERATING CURVE

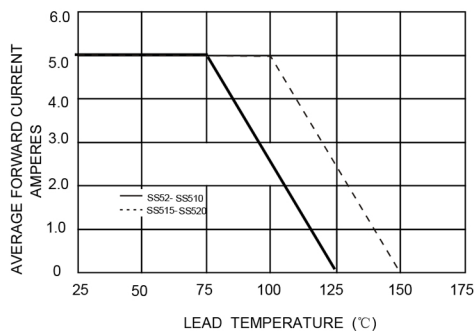


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

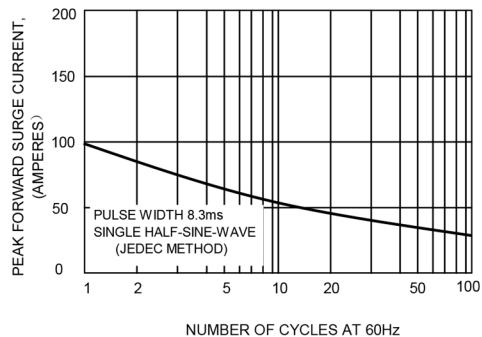


FIG. 3 – TYPICAL JUNCTION CAPACITANCE

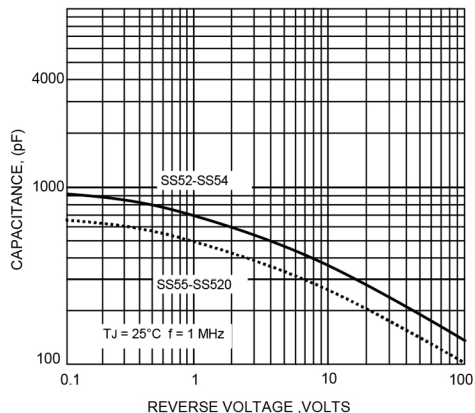


FIG. 4-TYPICAL FORWARD CHARACTERISTICS

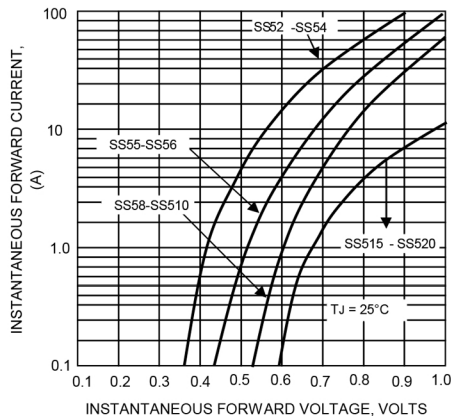


FIG. 2-TYPICAL REVER CHARACTERISTICS

