

# SS52 THRU SS520



## 5.0 AMP SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

### FEATURES

- \* Low forward voltage drop
- \* High current capability
- \* High reliability
- \* High surge current capability
- \* Epitaxial construction

### MECHANICAL DATA

- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 0.093 grams
- \* Both normal and Pb free product are available:
- \* Normal: 80~95%Sn, 5~20%Pb
- \* Pb free: 99 Sn above can meet Rohs environment substance directive request

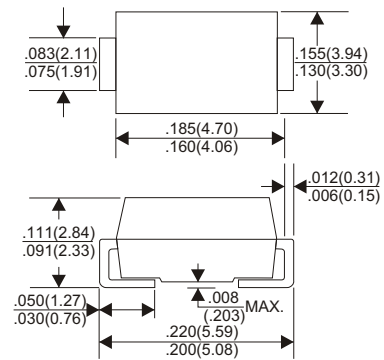
### VOLTAGE RANGE

20 to 200 Volts

### CURRENT

5.0 Ampere

#### DO-214AA(SMB)



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  | SS52       | SS54 | SS56       | SS58 | SS510 | SS315 | SS520 | UNITS |
|--|------------|------|------------|------|-------|-------|-------|-------|
| Maximum Recurrent Peak Reverse Voltage   | 20         | 40   | 60         | 80   | 100   | 150   | 200   | V     |
| Maximum RMS Voltage  | 14         | 28   | 42         | 56   | 70    | 105   | 140   | V     |
| Maximum DC Blocking Voltage  | 20         | 40   | 60         | 80   | 100   | 150   | 200   | V     |
| Maximum Average Forward Rectified Current  |            |      |            |      |       |       |       |       |
| See Fig. 1   | 5.0        |      |            |      |       |       |       | V     |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | 150        |      |            |      |       |       |       | 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 (Note 1)  | 380        |      |            |      |       |       |       | pF    |
| Typical Thermal Resistance R JA (Note 2)   | 10         |      |            |      |       |       |       | °C/W  |
| Operating Temperature Range Tj   | -65 — +125 |      | -65 — +150 |      |       |       |       | °C    |
| Storage Temperature Range TSTG   | -65 — +150 |      |            |      |       |       |       | °C    |

#### NOTES:

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

## RATING AND CHARACTERISTIC CURVES (SS52 THRU S520)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

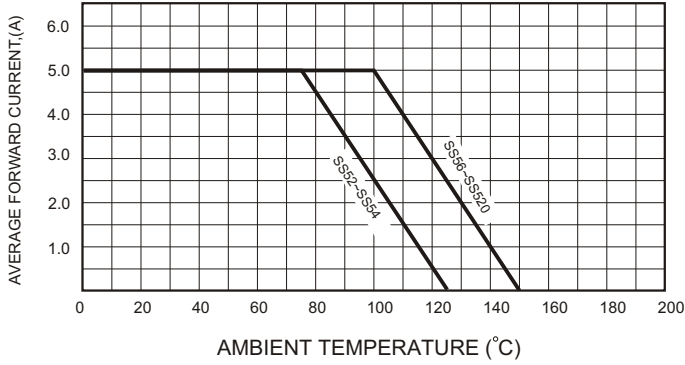


FIG.2-TYPICAL FORWARD CHARACTERISTICS

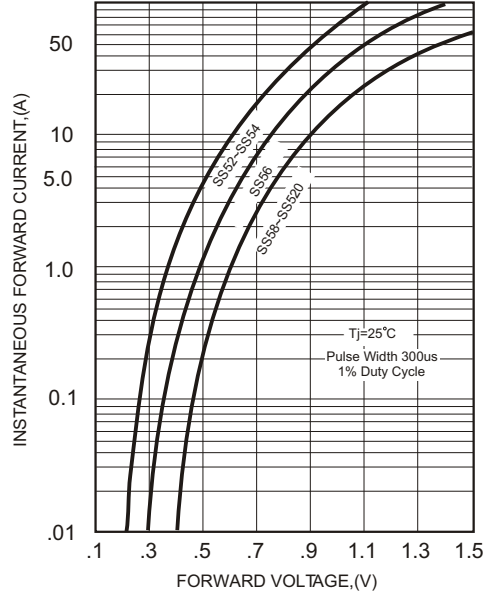


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

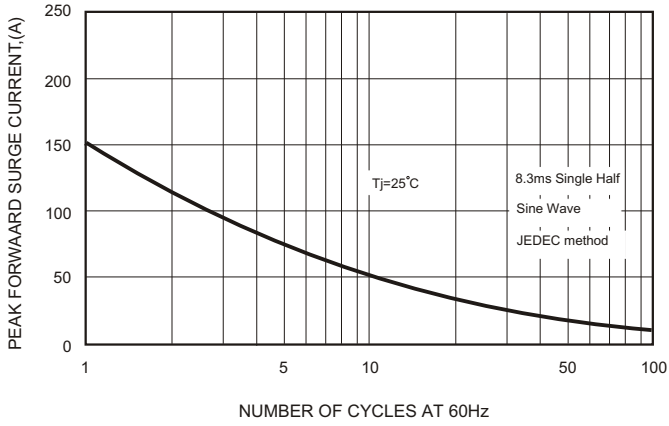


FIG.4-TYPICAL JUNCTION CAPACITANCE

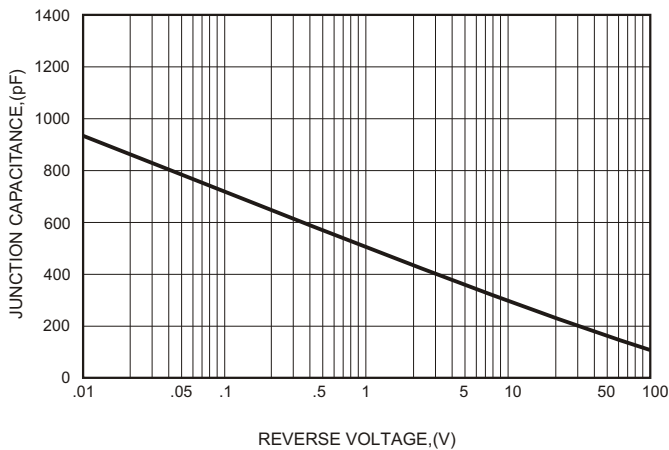


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

