

## SS52B THRU SS510B

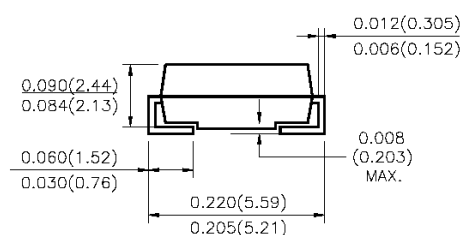
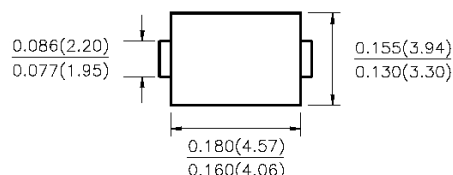
SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER  
VOLTAGE RANGE 20 to 100 Volts    CURRENT 5.0 Ampere

**FEATURES**

- ◆ Low profile surface mount package
- ◆ Built-in strain relief
- ◆ High switching speed
- ◆ Low voltage drop, high efficiency
- ◆ For use in low voltage high frequency inverters
- ◆ Free willing, and polarity protection applications
- ◆ Guarding for over voltage protection

**Mechanical Data**

- ◆ Case: Transfer molded plastic
- ◆ Epoxy: UL 94V-0 rate flame retardant
- ◆ Lead: Solder plated, solderable per MIL-STD-750 method 2026
- ◆ Polarity: Color band denotes cathode end

**DO-214AA (SMB)**

**Dimensions in inches and (millimeters)**

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

**Rating at 25°C ambient temperature unless otherwise specified.**

**Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%**

| PARAMETER                                                                                        |            | SYMBOL | SS<br>52B   | SS<br>53B | SS<br>54B | SS<br>55B | SS<br>56B | SS<br>58B | SS<br>59B | SS<br>510B | UNIT  |
|--------------------------------------------------------------------------------------------------|------------|--------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-------|
| Maximum Repetitive Peak Reverse Voltage                                                          |            | VRRM   | 20          | 30        | 40        | 50        | 60        | 80        | 90        | 100        | Volts |
| Maximum RMS Voltage                                                                              |            | VRMS   | 14          | 21        | 28        | 35        | 42        | 56        | 63        | 70         | Volts |
| Maximum DC Blocking Voltage                                                                      |            | VDC    | 20          | 30        | 40        | 50        | 60        | 80        | 90        | 100        | Volts |
| Maximum Average Forward Rectified Current                                                        |            | I(AV)  | 5.0         |           |           |           |           |           |           |            | Amps  |
| Peak Forward Surge Current 8.3mS single half sine-wave superimposed on rated load (JEDEC method) |            | IFSM   | 120         |           |           |           |           |           |           |            | Amps  |
| Maximum Instantaneous Forward Voltage @ 5.0A(Note1)                                              |            | VF     | 0.55        |           |           | 0.75      |           | 0.85      |           |            | Volts |
| Maximum DC Reverse Current at rated DC Blocking Voltage                                          | TA = 25°C  | IR     | 0.5         |           |           |           |           |           |           |            | uA    |
|                                                                                                  | TA = 100°C |        | 20.0        |           |           | 10.0      |           |           |           |            |       |
| Typical Thermal Resistance (Note 2)                                                              |            | RθJA   | 55          |           |           |           |           |           |           |            | pF    |
|                                                                                                  |            | RθJL   | 12          |           |           |           |           |           |           |            |       |
| Operating Junction Temperature                                                                   |            | TJ     | -55 to +125 |           |           |           |           |           |           |            | °C/W  |
| Storage Temperature Range                                                                        |            | TSTG   | -55 to +150 |           |           |           |           |           |           |            | °C    |

**Note:** 1. Pulse test: 300μs pulse width, 1% duty cycle

2. PCB mounted with 0.55"×0.55" (14mm×14mm) copper pads

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## RATING AND CHARACTERISTIC CURVES SS52B THRU SS510B

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

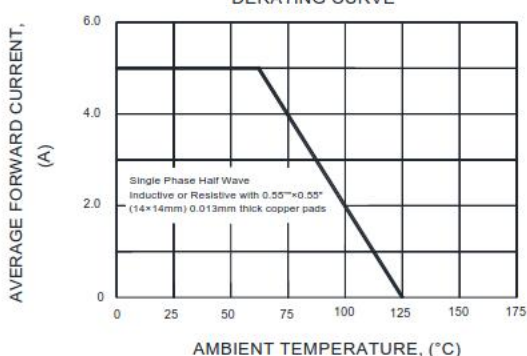


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

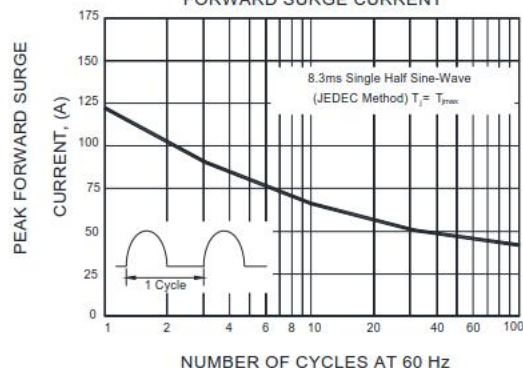


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

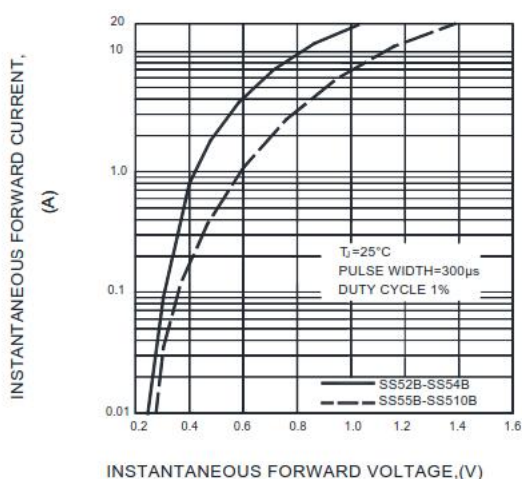


FIG.4-TYPICAL REVERSE CHARACTERISTICS

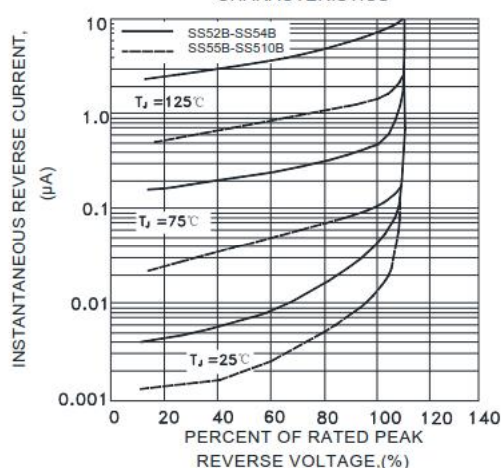
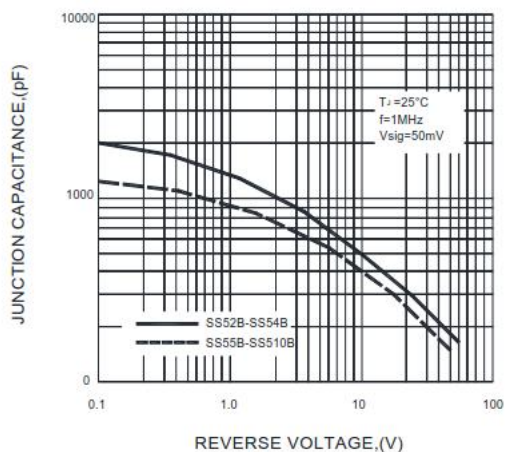


FIG.5-TYPICAL JUNCTION CAPACITANCE



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.