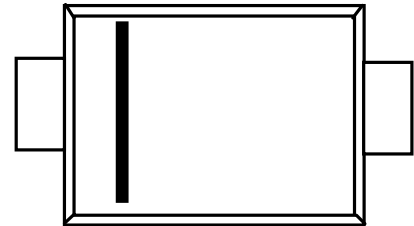


## »Features

- For surface mounted applications
- Metal silicon junction,majority carrier conduction
- Low power loss,high efficiency
- Built-in strain relief,ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed:  
250℃/10 seconds at terminals



**SMB(DO-214AA)**

## »General Description

- Case: JEDEC DO -214AA molded plastic
- Terminals: Axial leads. Solderable per MIL - STD - 750 Method 2026
- Polarity: Color band denotes cathode
- Mounting Position: Any

## » Maximum Ratings and Electrical Characteristics

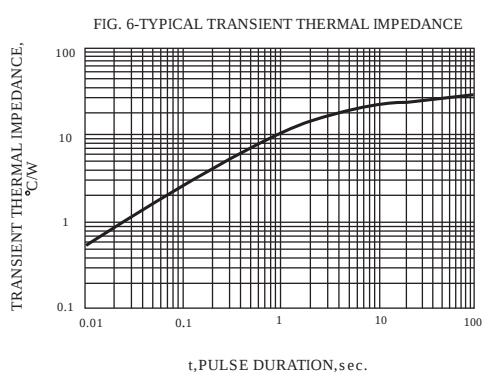
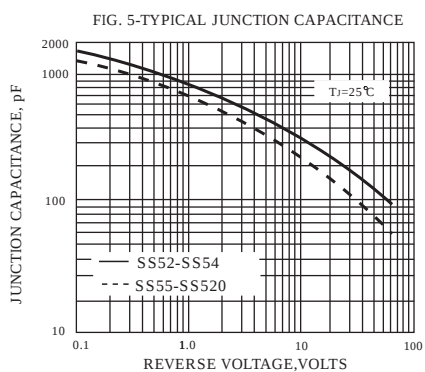
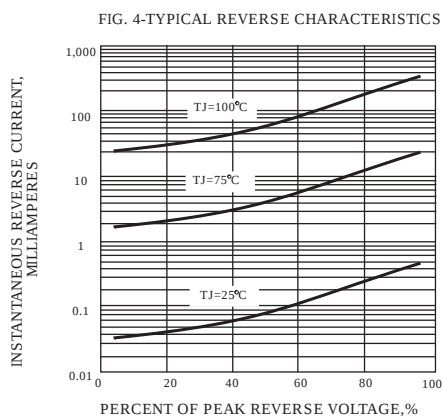
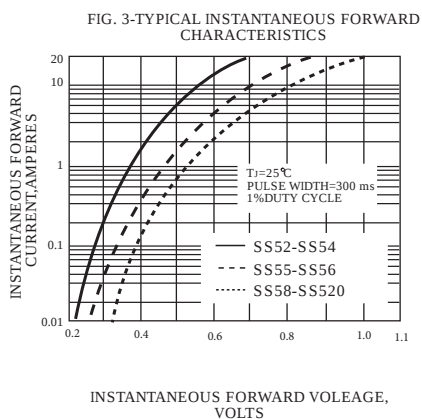
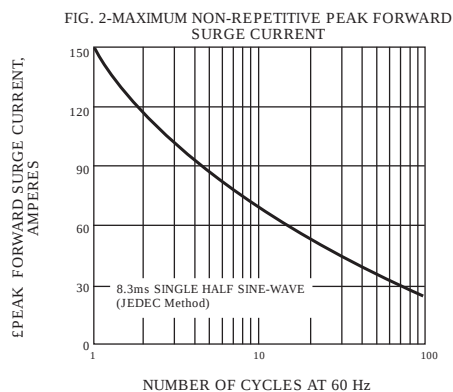
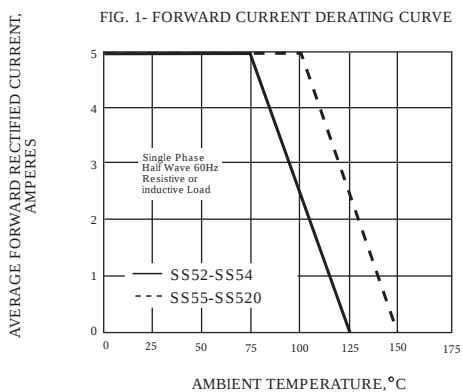
Ratings at 25℃ ambient temperature unless otherwise specified.

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

|                                                                                                                 | SYMBOLS           | SS52        | SS53 | SS54 | SS55 | SS56        | SS58 | SS510 | SS515 | SS520 | UNITS |
|-----------------------------------------------------------------------------------------------------------------|-------------------|-------------|------|------|------|-------------|------|-------|-------|-------|-------|
| Maximum repetitive peak reverse voltage                                                                         | V <sub>RRM</sub>  | 20          | 30   | 40   | 50   | 60          | 80   | 100   | 150   | 200   | VOLTS |
| Maximum RMS voltage                                                                                             | V <sub>RMS</sub>  | 14          | 21   | 28   | 35   | 42          | 56   | 70    | 105   | 140   | VOLTS |
| Maximum DC blocking voltage                                                                                     | V <sub>DC</sub>   | 20          | 30   | 40   | 50   | 60          | 80   | 100   | 150   | 200   | VOLTS |
| Maximum average forward rectified current at T <sub>L</sub> (see fig.1)                                         | I <sub>(AV)</sub> | 5.0         |      |      |      |             |      |       |       |       | Amps  |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on<br>rated load (JEDEC Method)          | I <sub>FSM</sub>  | 150.0       |      |      |      |             |      |       |       |       | Amps  |
| Maximum instantaneous forward voltage at 5.0A                                                                   | V <sub>F</sub>    | 0.45        | 0.55 |      | 0.70 |             | 0.85 |       |       |       | Volts |
| Maximum DC reverse current      T <sub>A</sub> =25°C<br>at rated DC blocking voltage      T <sub>A</sub> =100°C | I <sub>R</sub>    | 0.5         |      |      |      |             |      |       |       |       | mA    |
|                                                                                                                 |                   | 20          |      |      | 10   |             |      |       |       |       |       |
| Typical junction capacitance (NOTE 1)                                                                           | C <sub>J</sub>    | 800         |      |      | 500  |             |      |       |       |       | pF    |
| Typical thermal resistance (NOTE 2)                                                                             | R <sub>qJA</sub>  | 55.0        |      |      |      |             |      |       |       |       | °C/W  |
| Operating junction temperature range                                                                            | T <sub>J</sub>    | -65 to +125 |      |      |      | -65 to +150 |      |       |       |       | °C    |
| Storage temperature range                                                                                       | T <sub>STG</sub>  | -65 to +150 |      |      |      |             |      |       |       |       | °C    |

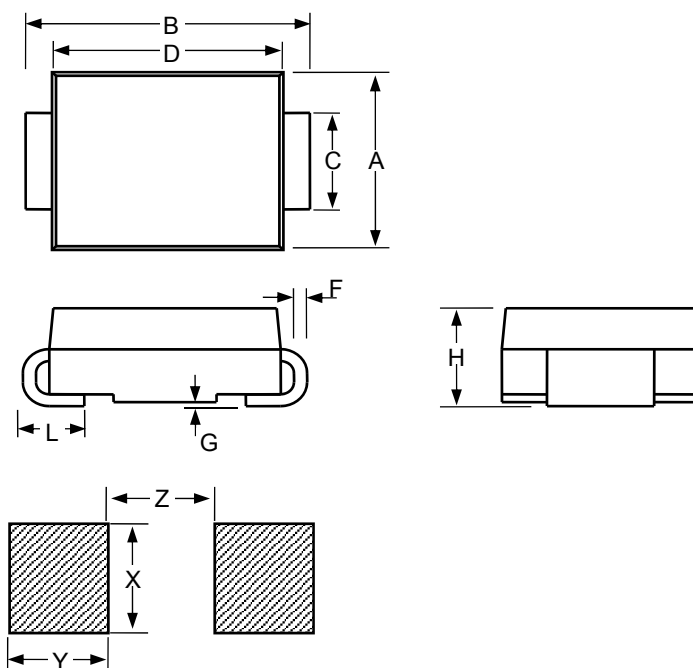
**Note:**1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

## »Typical Performance Characteristics ((T<sub>J</sub> = 25 °C, unless otherwise noted))



## »Package Information

**SMB**



| SMB       |        |       |       |             |      |       |
|-----------|--------|-------|-------|-------------|------|-------|
| Dimension | Inches |       |       | Millimeters |      |       |
|           | MIN    | NOM   | MAX   | MIN         | NOM  | MAX   |
| A         | 0.134  | 0.144 | 0.155 | 3.4         | 3.67 | 3.94  |
| B         | 0.201  | 0.213 | 0.224 | 5.1         | 5.4  | 5.7   |
| C         | 0.067  | 0.079 | 0.091 | 1.7         | 2.0  | 2.3   |
| D         | 0.169  |       | 0.185 | 4.3         |      | 4.7   |
| F         | 0.006  |       | 0.012 | 0.152       |      | 0.305 |
| G         | -      |       | 0.008 | -           |      | 0.203 |
| H         | 0.085  | 0.091 | 0.096 | 2.15        | 2.3  | 2.45  |
| L         | 0.03   |       | 0.06  | 0.76        |      | 1.52  |
| X         |        | 0.11  |       |             | 2.8  |       |
| Y         |        | 0.079 |       |             | 2    |       |
| Z         |        | 0.079 |       |             | 2    |       |

## »Ordering information

|             |      |      |      |      |      |      |       |       |       |
|-------------|------|------|------|------|------|------|-------|-------|-------|
| Part Number | SS52 | SS53 | SS54 | SS55 | SS56 | SS58 | SS510 | SS515 | SS520 |
| Marking     | SS52 | SS53 | SS54 | SS55 | SS56 | SS58 | SS510 | SS515 | SS520 |
| Base qty    | 3K   | 3K   | 3K   | 3K   | 3K   | 3K   | 3K    | 3K    | 3K    |