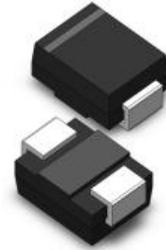


**VOLTAGE RANGE: 50 - 1000V**

**CURRENT: 2.0 A**

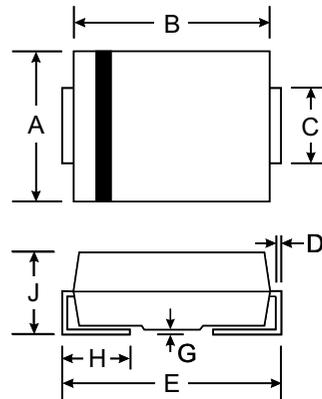
### Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop and High Current Capability
- Ideally Suited for Automated Assembly



### Mechanical Data

- Case: SMB(DO-214AA)Molded Plastic
- Case Material - UL Flammability Rating Classification 94V-0
- Terminals: Solder Plated Terminal - Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band or Cathode Notch
- Weight: 0.093 grams (approx.)



| SMB(DO-214AA)        |      |      |
|----------------------|------|------|
| Dim                  | Min  | Max  |
| A                    | 3.30 | 3.94 |
| B                    | 4.06 | 4.70 |
| C                    | 1.91 | 2.21 |
| D                    | 0.15 | 0.31 |
| E                    | 5.00 | 5.59 |
| G                    | 0.10 | 0.20 |
| H                    | 0.76 | 1.52 |
| J                    | 2.00 | 2.62 |
| All Dimensions in mm |      |      |

### Maximum Ratings and Electrical Characteristics @T<sub>A</sub> = 25°C unless otherwise specified

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

| Characteristic  | Symbol  | S2A         | S2B | S2D | S2G | S2J | S2K | S2M  | Unit |
|---|---|-------------|-----|-----|-----|-----|-----|------|------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                          | V <sub>RRM</sub><br>V <sub>RRWM</sub><br>V <sub>R</sub> | 50          | 100 | 200 | 400 | 600 | 800 | 1000 | V    |
| RMS Reverse Voltage   | V <sub>R(RMS)</sub>                                     | 35          | 70  | 140 | 280 | 420 | 560 | 700  | V    |
| Average Rectified Output Current @ T <sub>T</sub> = 100°C   | I <sub>(AV)</sub>                                       | 2.0         |     |     |     |     |     |      | A    |
| Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I <sub>FSM</sub>  | 60          |     |     |     |     |     |      | A    |
| Forward Voltage @ I <sub>F</sub> = 2.0A   | V <sub>FM</sub>   | 1.1         |     |     |     |     |     |      | V    |
| Peak Reverse Current @ T <sub>A</sub> = 25°C at Rated DC Blocking Voltage<br>@ T <sub>A</sub> = 125°C           | I <sub>RM</sub>   | 5.0<br>200  |     |     |     |     |     |      | μA   |
| Typical Total Capacitance (Note 1)  | C <sub>T</sub>  | 30          |     |     |     |     |     |      | pF   |
| Typical Thermal Resistance, Junction to Terminal (Note 2)   | R <sub>θJT</sub>  | 16          |     |     |     |     |     |      | °C/W |
| Operating and Storage Temperature Range   | T <sub>j</sub> , T <sub>STG</sub>                       | -65 to +150 |     |     |     |     |     |      | °C   |

Notes: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.  
2. Thermal Resistance Junction to Terminal, unit mounted on PC board with 5.0 mm<sup>2</sup> (0.013 mm thick) copper pads as heat sink.

### RATING AND CHARACTERISTIC CURVES S2A THRU S2M

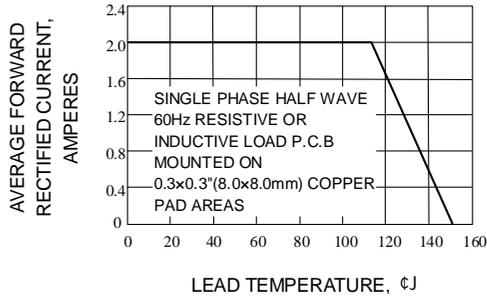


Fig. 1-FORWARD CURRENT DERATING CURVE

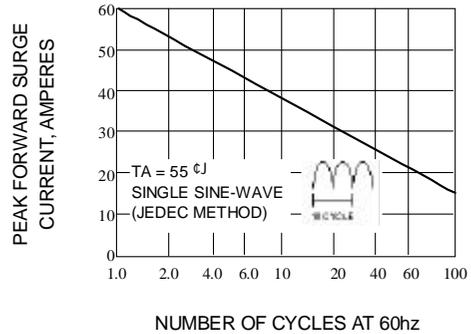


Fig. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

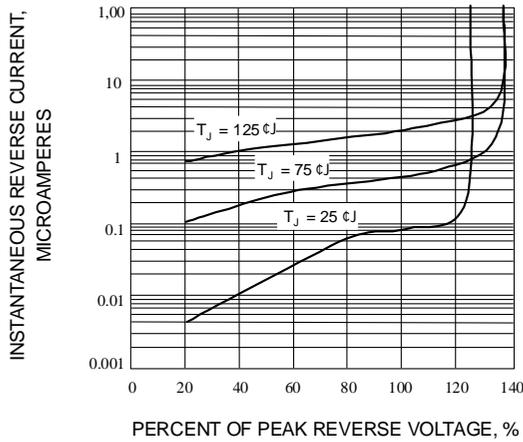


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

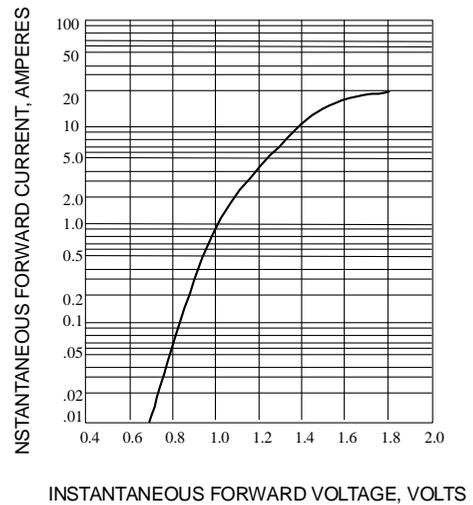


Fig. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

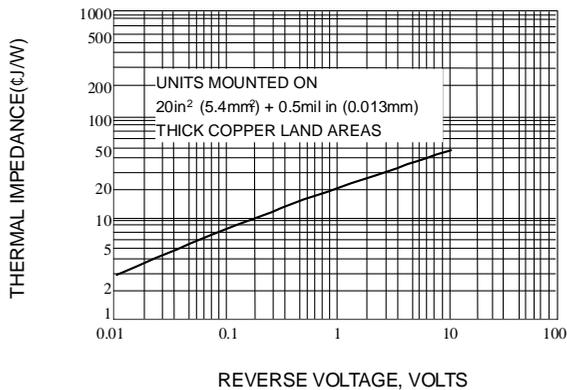


Fig. 5-TRANSIENT THERMAL IMPEDANCE

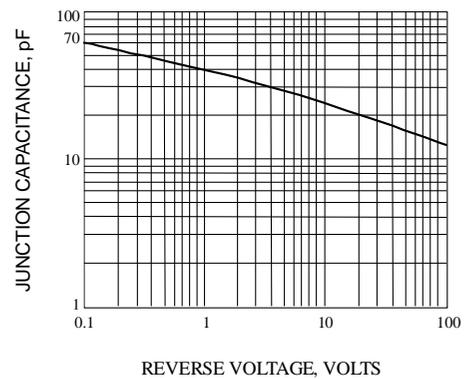


Fig. 6-TYPICAL JUNCTION CAPACITANCE