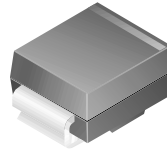




## S2A - S2M

### Features

- Easy pick and place.
- Low forward Voltage Drop.
- High Current Capability.
- High Surge Current Capability.



**SMB/DO-214AA**  
COLOR BAND DENOTES CATHODE

## General Purpose Rectifiers (Glass Passivated)

### Absolute Maximum Ratings\* T<sub>A</sub> = 25°C unless otherwise noted

| Symbol             | Parameter                                                                 | Value       |     |     |     |     |     |      | Units |
|--------------------|---------------------------------------------------------------------------|-------------|-----|-----|-----|-----|-----|------|-------|
|                    |                                                                           | 2A          | 2B  | 2D  | 2G  | 2J  | 2K  | 2M   |       |
| V <sub>RRM</sub>   | Maximum Repetitive Reverse Voltage                                        | 50          | 100 | 200 | 400 | 600 | 800 | 1000 | V     |
| I <sub>F(AV)</sub> | Average Rectified Forward Current, @ T <sub>A</sub> = 100°C               | 2.0         |     |     |     |     |     |      | A     |
| I <sub>FSM</sub>   | Non-repetitive Peak Forward Surge Current<br>8.3 ms Single Half-Sine-Wave | 50          |     |     |     |     |     |      | A     |
| T <sub>stg</sub>   | Storage Temperature Range                                                 | -65 to +150 |     |     |     |     |     |      | °C    |
| T <sub>J</sub>     | Operating Junction Temperature                                            | -65 to +150 |     |     |     |     |     |      | °C    |

\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### Thermal Characteristics

| Symbol           | Parameter                                | Value | Units |
|------------------|------------------------------------------|-------|-------|
| P <sub>D</sub>   | Power Dissipation                        | 2.35  | W     |
| R <sub>θJA</sub> | Thermal Resistance, Junction to Ambient* | 53    | °C/W  |

\*Device mounted on FR-4 PCB 0.013 mm.

### Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise noted

| Symbol          | Parameter                                                                                         | Device |    |    |    |    |    |    | Units |
|-----------------|---------------------------------------------------------------------------------------------------|--------|----|----|----|----|----|----|-------|
|                 |                                                                                                   | 2A     | 2B | 2D | 2G | 2J | 2K | 2M |       |
| V <sub>F</sub>  | Forward Voltage @ 2.0 A                                                                           | 1.15   |    |    |    |    |    |    | V     |
| t <sub>rr</sub> | Reverse Recovery Time<br>I <sub>F</sub> = 0.5 A, I <sub>R</sub> = 1.0 A, I <sub>rr</sub> = 0.25 A | 2.0    |    |    |    |    |    |    | μs    |
| I <sub>R</sub>  | Reverse Current @ rated V <sub>R</sub>                                                            | 1.0    |    |    |    |    |    |    | μA    |
|                 |                                                                                                   | 125    |    |    |    |    |    |    | μA    |
| C <sub>T</sub>  | Total Capacitance<br>V <sub>R</sub> = 4.0 V, f = 1.0 MHz                                          | 30     |    |    |    |    |    |    | pF    |

Typical Characteristics

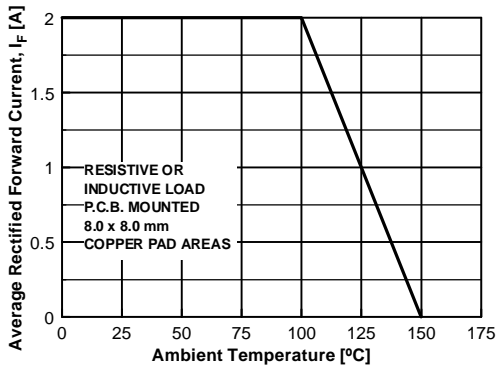


Figure 1. Forward Current Derating Curve

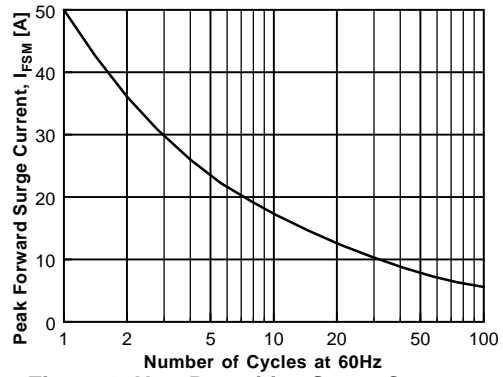


Figure 2. Non-Repetitive Surge Current

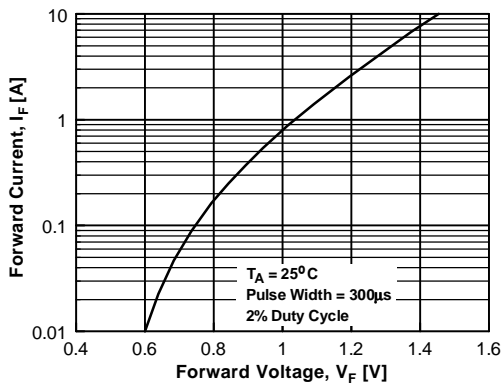


Figure 3. Forward Voltage Characteristics

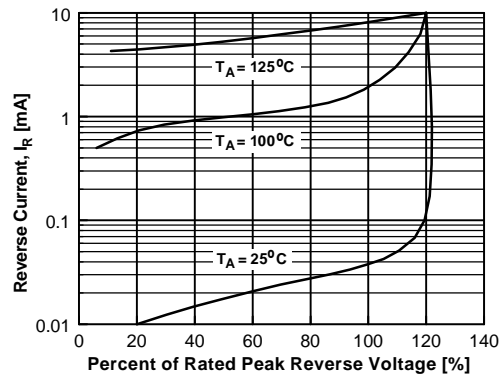


Figure 4. Reverse Current vs Reverse Voltage

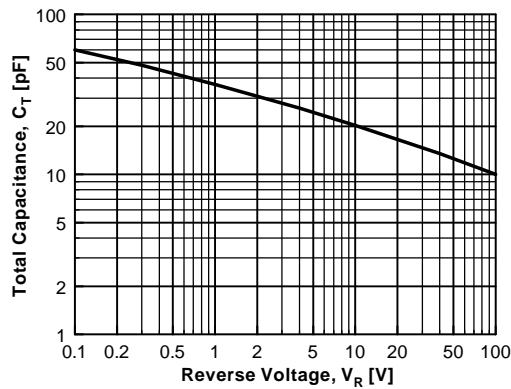


Figure 5. Total Capacitance

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| Bottomless <sup>TM</sup>          | FAST <sub>r</sub> <sup>TM</sup>  | OPTOPLANAR <sup>TM</sup>         | STAR*POWER <sup>TM</sup>     |                   |
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