

## FEATURES

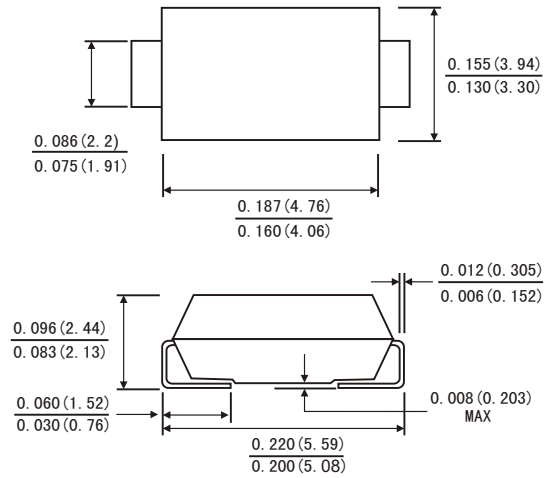
- Super fast switching time for high efficiency
- Low forward voltage drop and high current capability
- Low reverse leakage current
- Plastic material has UL flammability classification 94V-0

## MECHANICAL DATA

- Case: JEDEC SMB(DO-214AA) molded plastic body
- Terminals: solder plated, solderable per MIL-STD-750, method 2026
- Polarity: color band denotes cathode end
- Weight: 0.003ounce, 0.093 gram



### SMB(DO-214AA)



Dimensions in inches and (millimeters)

## Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

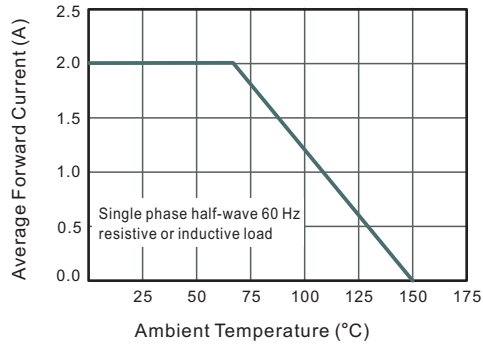
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %

| Parameter   | Symbols         | S2A        | S2B | S2D | S2G | S2J | S2K | S2M  | Units              |
|---|-----------------|------------|-----|-----|-----|-----|-----|------|--------------------|
| Maximum Repetitive Peak Reverse Voltage   | $V_{RRM}$       | 50         | 100 | 200 | 400 | 600 | 800 | 1000 | V                  |
| Maximum RMS voltage   | $V_{RMS}$       | 35         | 70  | 140 | 280 | 420 | 560 | 700  | V                  |
| Maximum DC Blocking Voltage   | $V_{DC}$        | 50         | 100 | 200 | 400 | 600 | 800 | 1000 | V                  |
| Maximum Average Forward Rectified Current at $T_a = 65\text{ }^\circ\text{C}$   | $I_{F(AV)}$     | 2          |     |     |     |     |     |      | A                  |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)                                   | $I_{FSM}$       | 60         |     |     |     |     |     |      | A                  |
| Maximum Instantaneous Forward Voltage at 2 A  | $V_F$           | 1.1        |     |     |     |     |     |      | V                  |
| Maximum DC Reverse Current<br>$T_a = 25\text{ }^\circ\text{C}$<br>at Rated DC Blocking Voltage<br>$T_a = 125\text{ }^\circ\text{C}$ | $I_R$           | 5<br>50    |     |     |     |     |     |      | $\mu\text{A}$      |
| Typical Junction Capacitance <sup>1)</sup>  | $C_j$           | 30         |     |     |     |     |     |      | pF                 |
| Typical Thermal Resistance <sup>2)</sup>  | $R_{\theta JA}$ | 50         |     |     |     |     |     |      | $^\circ\text{C/W}$ |
| Operating and Storage Temperature Range   | $T_j, T_{stg}$  | -55 ~ +150 |     |     |     |     |     |      | $^\circ\text{C}$   |

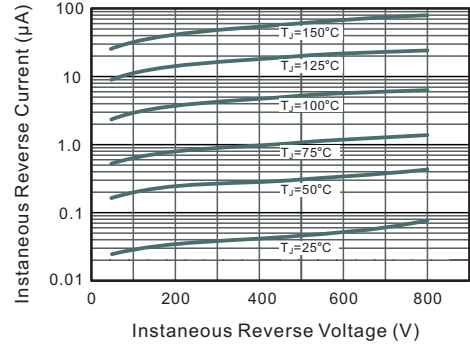
1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

2) Thermal resistance from junction to ambient at 0.375" (9.5 mm) lead length, P.C.B. mounted

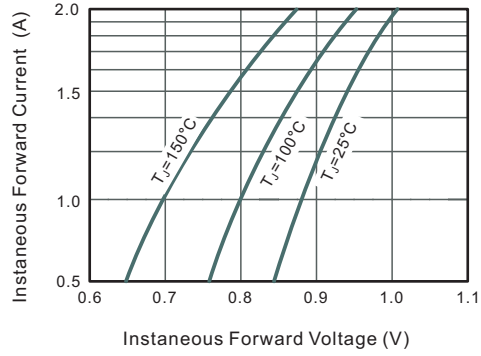
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Instantaneous Reverse Characteristics**



**Fig.3 Typical Forward Characteristic**



**Fig.4 Typical Junction Capacitance**

