

# S3A THRU S3M

## SURFACE MOUNT GENERAL RECTIFIERS

Reverse Voltage - 50 to 1000 V

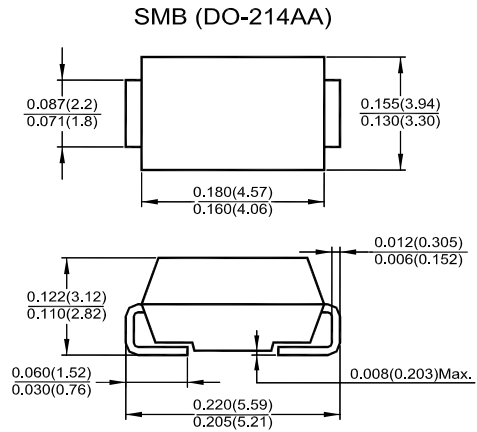
Forward Current - 3 A

### Features

- The plastic package carries UL flammability classification 94V-0
- High forward surge current capability
- Low reverse current

### Mechanical Data

- **Case:** SMB (DO-214AA) molded plastic body
- **Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026
- **Polarity:** Color band denotes cathode end
- **Mounting position:** Any



Dimensions in inches and (millimeters)

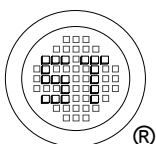
### Maximum Ratings and Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Parameter   | Symbols         | S3A           | S3B | S3D | S3G | S3J | S3K | S3M  | 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 Current at $T_L = 110^\circ\text{C}$  | $I_{F(AV)}$     | 3             |     |     |     |     |     |      | A                  |
| Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)                   | $I_{FSM}$       | 100           |     |     |     |     |     |      | A                  |
| Maximum Forward Voltage at $I_F = 3\text{ A}$   | $V_F$           | 1.1           |     |     |     |     |     |      | V                  |
| Maximum DC Reverse Current at $T_A = 25^\circ\text{C}$<br>at Rated DC Blocking Voltage at $T_A = 100^\circ\text{C}$ | $I_R$           | 5<br>100      |     |     |     |     |     |      | $\mu\text{A}$      |
| Typical Junction Capacitance <sup>1)</sup>  | $C_J$           | 60            |     |     |     |     |     |      | pF                 |
| Typical Thermal Resistance <sup>2)</sup>  | $R_{\theta JA}$ | 50            |     |     |     |     |     |      | $^\circ\text{C/W}$ |
| Operating and Storage Temperature Range   | $T_j, T_{stg}$  | - 65 to + 175 |     |     |     |     |     |      | $^\circ\text{C}$   |

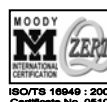
<sup>1)</sup> Measured at 1 MHz and applied reverse voltage of 4 V.

<sup>2)</sup> P.C.B mounted with 0.2 X 0.2" (5 X 5 mm) copper pad areas

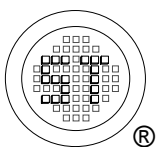
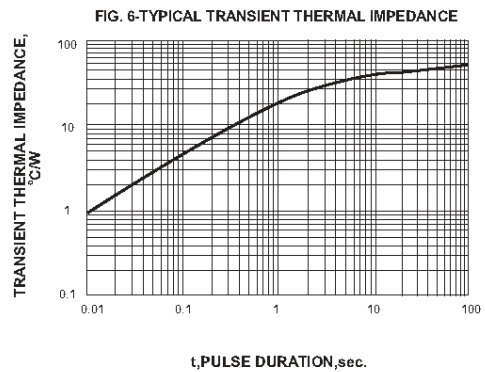
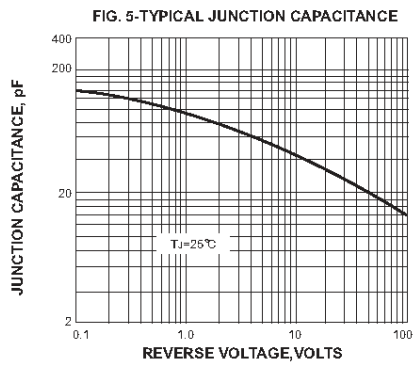
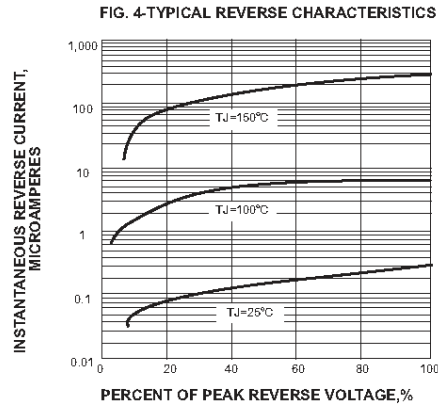
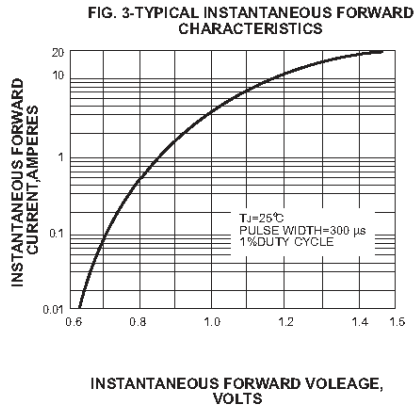
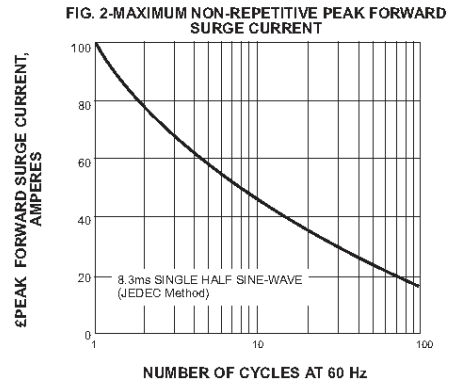
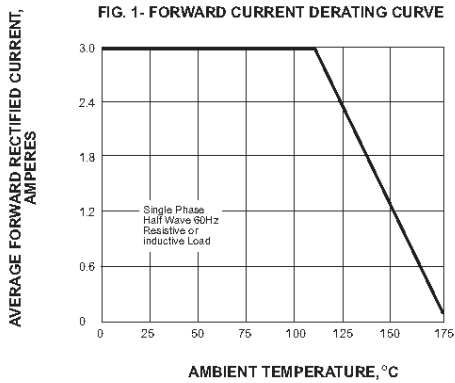


**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



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