

S3A THRU S3M

SURFACE MOUNT GENERAL RECTIFIERS

Reverse Voltage - 50 to 1000 V

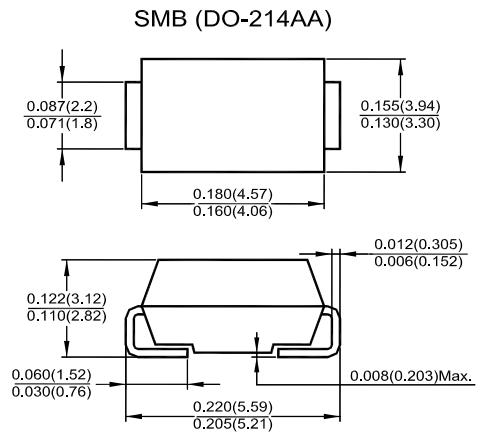
Forward Current - 3 A

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)

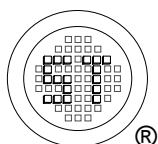
Maximum Ratings and Characteristics

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 $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_A = 100^\circ\text{C}$ | I_R | 5 100 | | | | | | | μA |
| Typical Junction Capacitance ¹⁾ | C_J | 60 | | | | | | | pF |
| Typical Thermal Resistance ²⁾ | $R_{\theta JA}$ | 50 | | | | | | | $^\circ\text{C/W}$ |
| Operating and Storage Temperature Range | T_j, T_{stg} | - 65 to + 175 | | | | | | | $^\circ\text{C}$ |

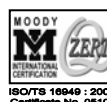
¹⁾ Measured at 1 MHz and applied reverse voltage of 4 V.

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

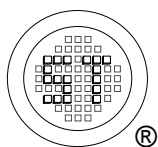
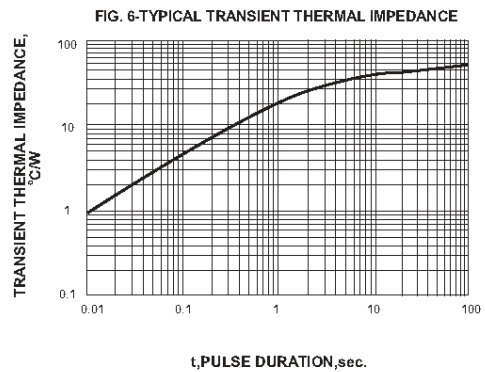
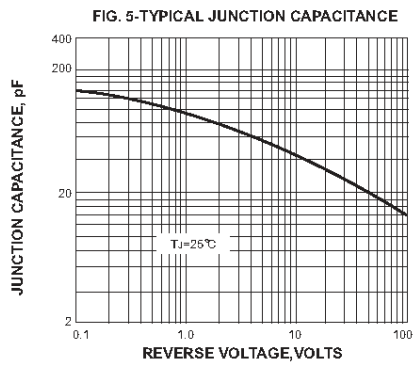
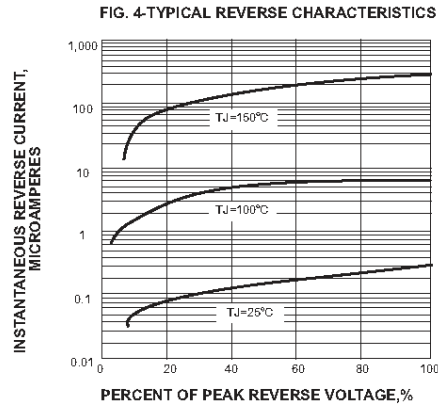
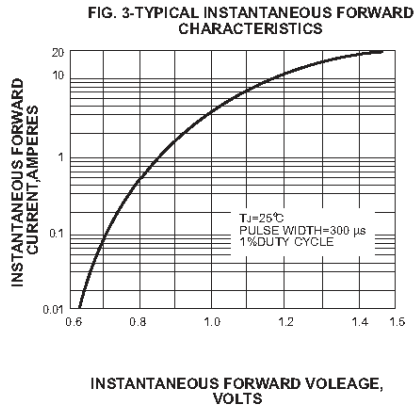
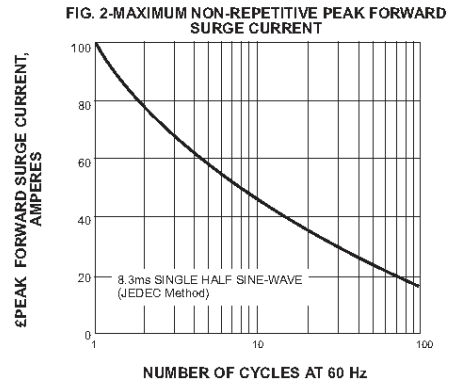
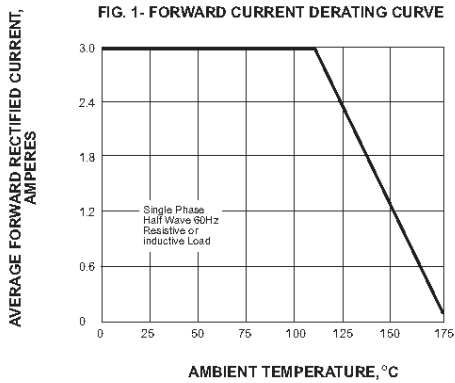


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