



S5A THRU S5M

SURFACE MOUNT GENERAL RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 5.0 Ampere

FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low reverse leakage
- Built-in strain relief, ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed: 250°C/10 seconds at terminals

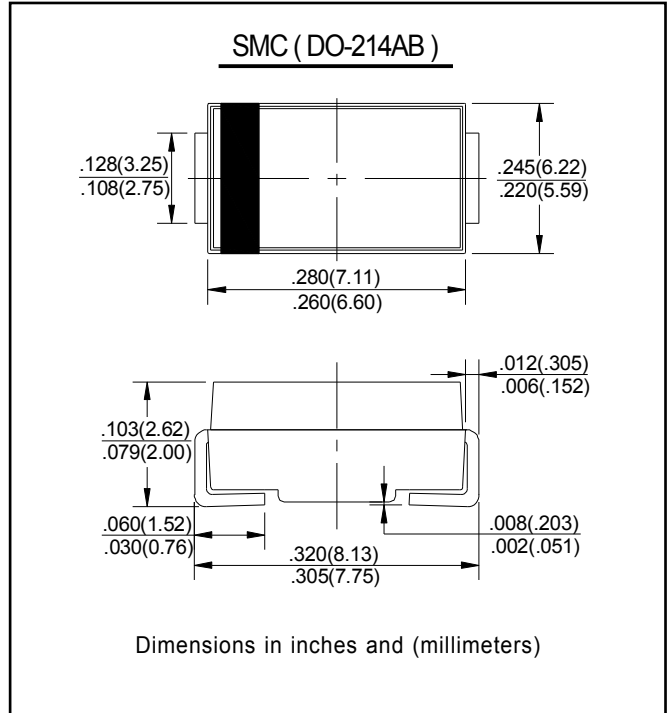
MECHANICAL DATA

Case: JEDEC SMC/DO-214AB molded plastic body
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.007 ounce, 0.24grams



Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

| Characteristic | Symbol | S5A | S5B | S5D | S5G | S5J | S5K | S5M | Unit | |
|---|-----------------|------------------------------|-----|-----|-----|-----|-----|------|------|--------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | | | | | | | | | |
| Working Peak Reverse Voltage | V_{RWM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V | |
| DC Blocking Voltage | V_R | | | | | | | | | |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V | |
| Average Rectified Output Current @ $T_L = 75^\circ\text{C}$ | I_O | 5.0 | | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 100 | | | | | | | | A |
| Forward Voltage @ $I_F = 5.0\text{A}$ | V_{FM} | 1.10 | | | | | | | | V |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$ | I_{RM} | 10.0 250 | | | | | | | | μA |
| Typical Junction Capacitance (Note 2) | C_j | 40 | | | | | | | | pF |
| Typical Thermal Resistance (Note 3) | $R_{\theta JL}$ | 10 | | | | | | | | $^\circ\text{C/W}$ |
| Operating and Storage Temperature Range | T_j, T_{STG} | -55 to +150 $^\circ\text{C}$ | | | | | | | | $^\circ\text{C}$ |

- Note: 1. Measured with $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{rr} = 0.25\text{A}$,
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.
 3. Mounted on P.C. Board with 8.0mm² land area.



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RATINGS AND CHARACTERISTIC CURVES

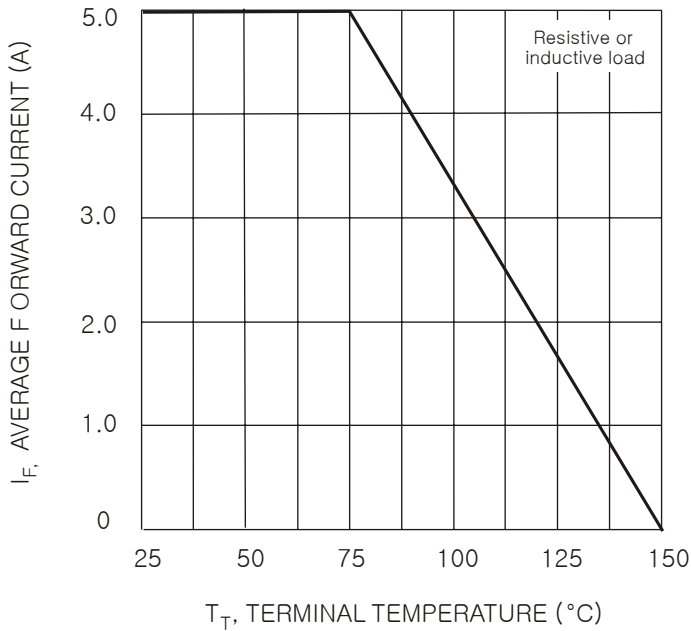


Fig. 1 Forward Current Derating Curve

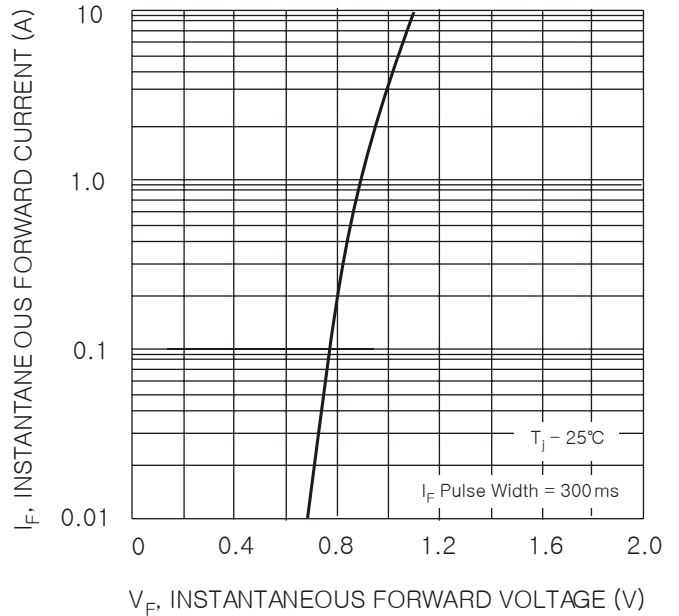


Fig. 2 Typical Forward Characteristics

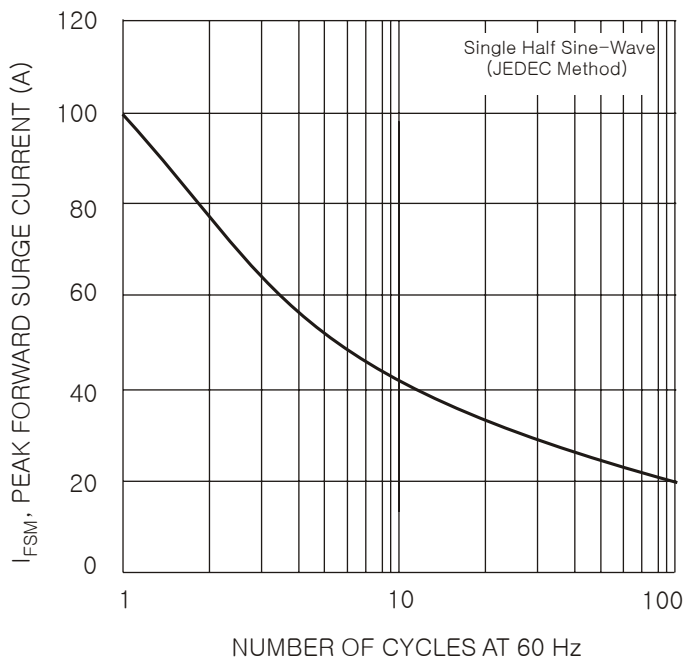


Fig. 3 Forward Surge Current Derating Curve

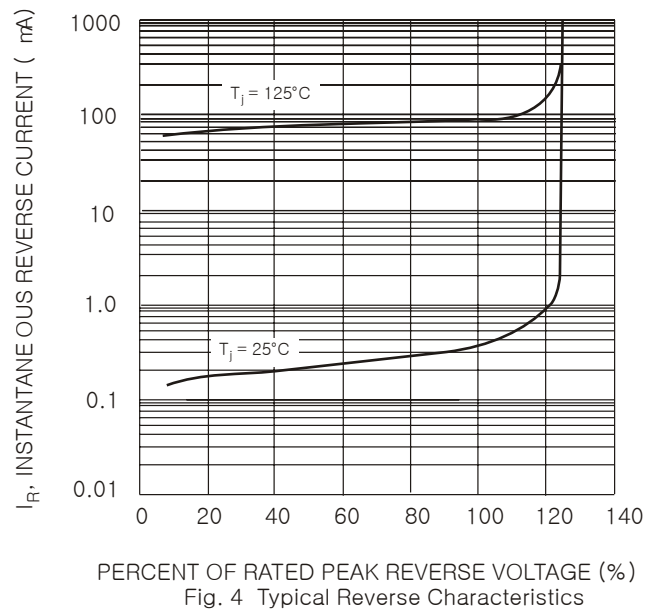


Fig. 4 Typical Reverse Characteristics