

S5A THRU S5M



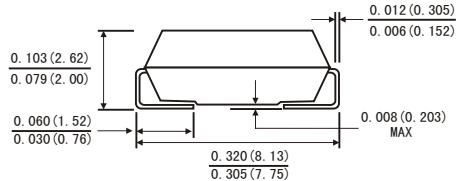
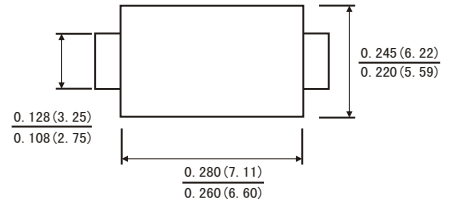
GENERAL PURPOSE PLASTIC RECTIFIER
Reverse Voltage - 50 to 1000 Volts
Forward Current - 5.0Amperes

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



SMC-DO-214AB



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: Molded Plastic
- Polarity: Color band denotes cathode
- Weight: 0.007 ounces, 0.21 grams
- Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| | Symbols | S5A | S5B | S5D | S5G | S5J | S5K | S5M | Units | |
|--|--------------------|---------------------------|------|-----|-----|-----|-----|------|--------------------|---------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts | |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts | |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts | |
| Maximum average Forward Rectified Current 0.375"(9.5mm)lead length at $T_a=60^\circ\text{C}$ | $I(AV)$ | 5.0 | | | | | | | Amps | |
| Peak Forward Surge Current (8.3ms half sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 300.0 | | | | | | | Amps | |
| Maximum Instantaneous Forward Voltage at 5.0 A | V_F | 0.95 | | | | | | | Volts | |
| Maximum Reverse current at rated DC Blocking Voltage | I_R | $T_a = 25^\circ\text{C}$ | 20.0 | | | | | | | μA |
| | | $T_a = 100^\circ\text{C}$ | 50.0 | | | | | | | |
| Typical Thermal Resistance (Note 2) | $R_{\theta JA}$ | 18.0 | | | | | | | $^\circ\text{C/W}$ | |
| Typical Junction Capacitance (Note 1) | C_J | 50.0 | | | | | | | pF | |
| Operating and Storage temperature Range | T_J T_{STG} | -65 to +175 | | | | | | | $^\circ\text{C}$ | |

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V

2. Thermal resistance from Junction to Ambient at 0.375" (9.5mm) Lead Lengths, P. C. Board Mounted

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FIG.1-FORWARD CURRENT DERATING CURVE

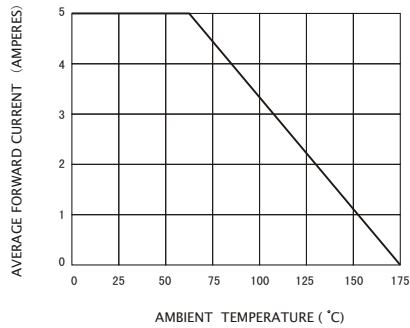


FIG.2-TYPICAL INSTANTANEOUS FORWARD VOLTAGE.(V)

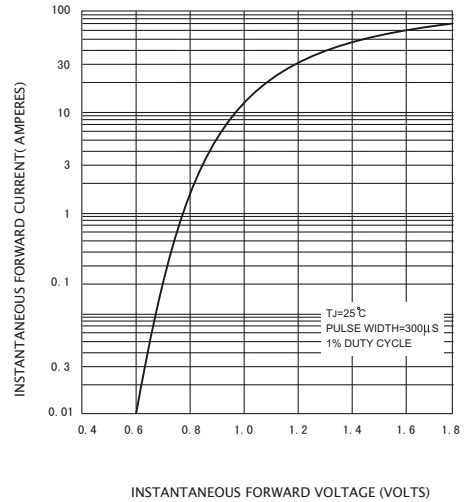


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

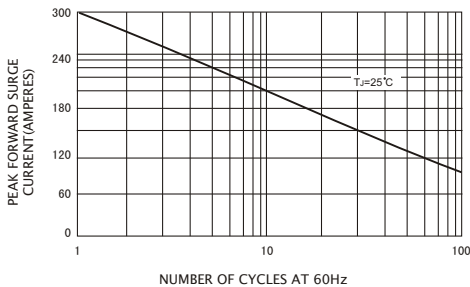


FIG.4-TYPICAL REVERSE CHARACTERISTICS

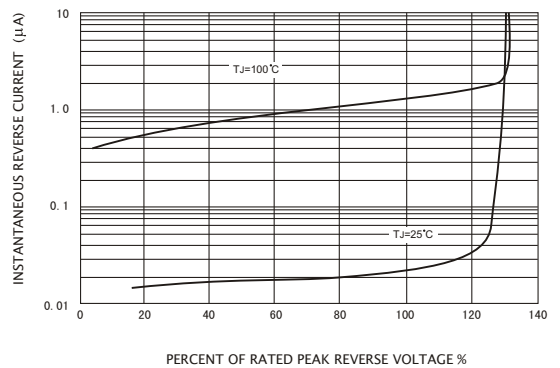


FIG.5-TYPICAL JUNCTION CAPACITANCE

