

Voltage Range - 50 to 1000 V Forward Current - 5 Ampere

SURFACE MOUNT GENERAL PURPOSE SILICON RECTIFIERS

FEATURES

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

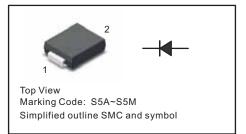
Case: SMC

• Terminals: Solderable per MIL-STD-750, Method 2026

Approx. Weight: 0.22g / 0.0077oz

PINNING

| PIN | DESCRIPTION | | | |
|-----|-------------|--|--|--|
| 1 | Cathode | | | |
| 2 | Anode | | | |



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 | S5A | S5B | S5D | S5G | S5J | S5K | S5M | 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 | I _{F(AV)} | 5 | | | | | | | А |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load | I _{FSM} | 150 | | | | | | А | |
| Maximum Instantaneous Forward Voltage at 5 A | V _F | 1.1 | | | | | | V | |
| Maximum DC Reverse Current $T_a = 25 ^{\circ}\text{C}$ at Rated DC Blocking Voltage $T_a = 125 ^{\circ}\text{C}$ | I _R | 5 100 | | | | | | μА | |
| Typical Junction Capacitance (1) | C _j | 50 | | | | | | pF | |
| Typical Thermal Resistance (2) | $R_{	heta_{JC}}$ | 35 13 | | | | | | °C/W | |
| Operating and Storage Temperature Range | T_{j},T_{stg} | -55 ~ +150 | | | | | | °C | |

Notes:

- 1. Measured at 1 MHz and applied reverse voltage of 4 V D.C
- 2. P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

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RATINGS AND CHARACTERISTIC CURVES S5A - S5M

Fig.1 Forward Current Derating Curve

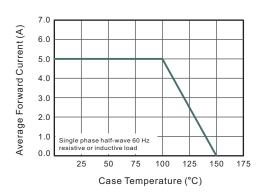


Fig.2 Typical Reverse Characteristics

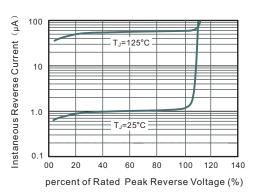


Fig.3 Typical Forward Characteristic

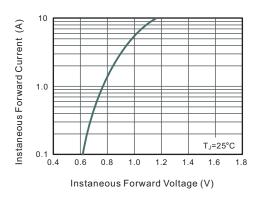


Fig.4 Typical Junction Capacitance

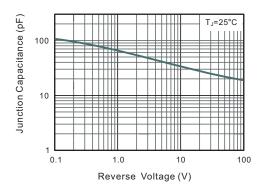
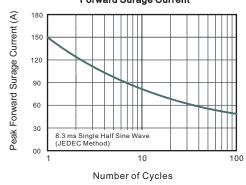


Fig.6 Maximum Non-Repetitive Peak Forward Surage Current



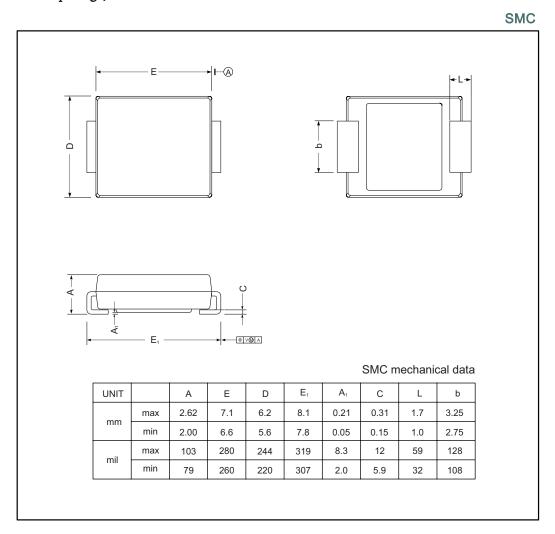
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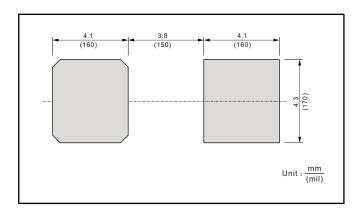
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PACKAGE OUTLINE

Plastic surface mounted package; 2 leads



The recommended mounting pad size



Marking

| Type number | Marking code | | | | |
|-------------|--------------|--|--|--|--|
| S5A | S5A | | | | |
| S5B | S5B | | | | |
| S5D | S5D | | | | |
| S5G | S5G | | | | |
| S5J | S5J | | | | |
| S5K | S5K | | | | |
| S5M | S5M | | | | |
| | | | | | |

Disclaimer

All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.

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