

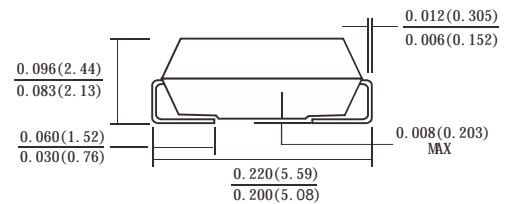
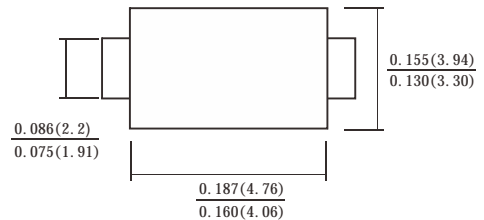


SS56L THRU SS510L

Surface Mount Low VF Schottky Rectifiers



SMB(DO-214AA)



Dimensions in inches and (millimeters)

Features

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- Case: SMB
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.1g / 0.0034oz

Absolute 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 %

| Parameter | Symbols | SS56L | SS510L | Units |
|---|-----------------|------------|--------|-------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 60 | 100 | V |
| Maximum RMS voltage | V_{RMS} | 42 | 70 | V |
| Maximum DC Blocking Voltage | V_{DC} | 60 | 100 | V |
| Maximum Average Forward Rectified Current | $I_{F(AV)}$ | 5.0 | | A |
| Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | I_{FSM} | 150 | | A |
| Max Instantaneous Forward Voltage at 5 A | V_F | 0.5 | 0.6 | V |
| Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Reverse Voltage $T_a = 100^\circ\text{C}$ | I_R | 1.0 50 | | mA |
| Typical Junction Capacitance ⁽¹⁾ | C_j | 600 | | pF |
| Typical Thermal Resistance ⁽²⁾ | $R_{\theta JA}$ | 45 | | °C/W |
| Operating Junction Temperature Range | T_j | -55 ~ +150 | | °C |
| Storage Temperature Range | T_{stg} | -55 ~ +150 | | °C |

(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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Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig.1 Forward Current Derating Curve

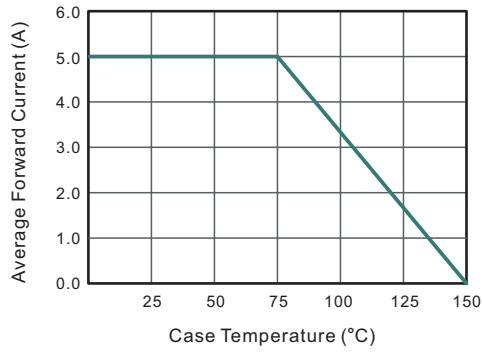


Fig.2 Typical Reverse Characteristics

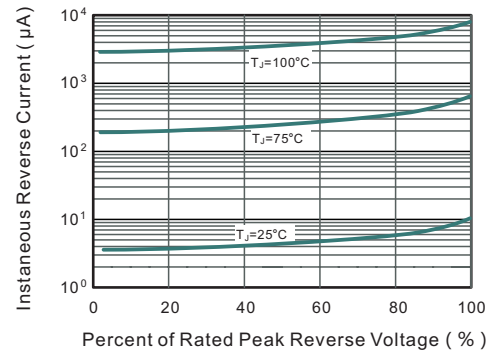


Fig.3 Typical Forward Characteristic

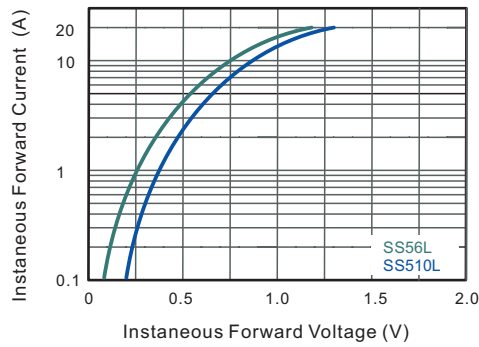


Fig.4 Typical Junction Capacitance

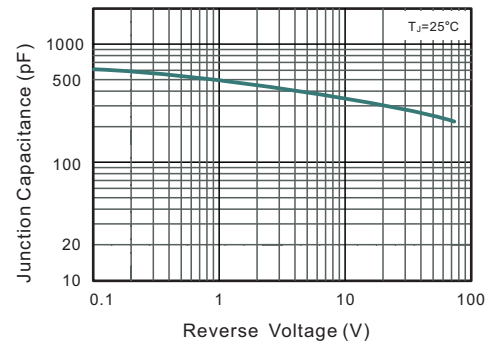


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

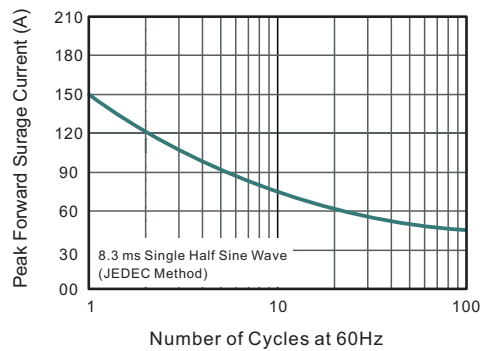


Fig.6 Typical Transient Thermal Impedance

