



# SSL54F THRU SSL56F

## Surface Mount Low VF Schottky Rectifiers

Reverse Voltage - 20 to 60V  
Forward Current - 5.0A

### FEATURES

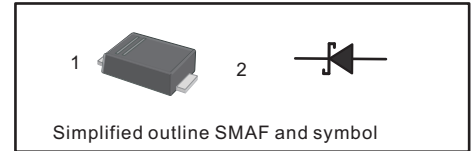
- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

### MECHANICAL DATA

- Case: SMAF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 27mg 0.00086oz

### PINNING

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



### 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         | SSL54F     | SSL56F | Units |
|---|-----------------|------------|--------|-------|
| Maximum Repetitive Peak Reverse Voltage   | $V_{RRM}$       | 40         | 60     | V     |
| Maximum RMS voltage   | $V_{RMS}$       | 28         | 42     | V     |
| Maximum DC Blocking Voltage   | $V_{DC}$        | 40         | 60     | 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  | $V_F$           | 0.45       | 0.55   | 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<br>50  |        | mA    |
| Typical Junction Capacitance <sup>1)</sup>  | $C_j$           | 800        | 500    | pF    |
| Typical Thermal Resistance <sup>2)</sup>  | $R_{\theta JA}$ | 55         |        | °C/W  |
| Operating Junction Temperature Range  | $T_j$           | -55 ~ +125 |        | °C    |
| Storage Temperature Range   | $T_{stg}$       | -55 ~ +150 |        | °C    |

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

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



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

Fig.1 Forward Current Derating Curve

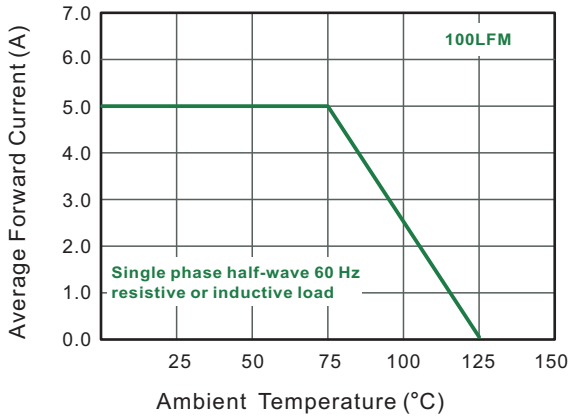


Fig.2 Typical Reverse Characteristics

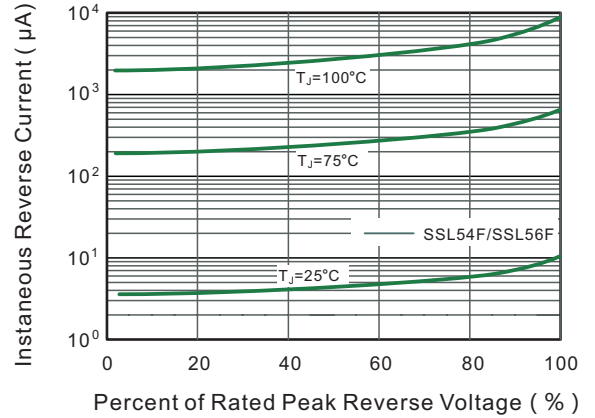


Fig.3 Typical Forward Characteristic

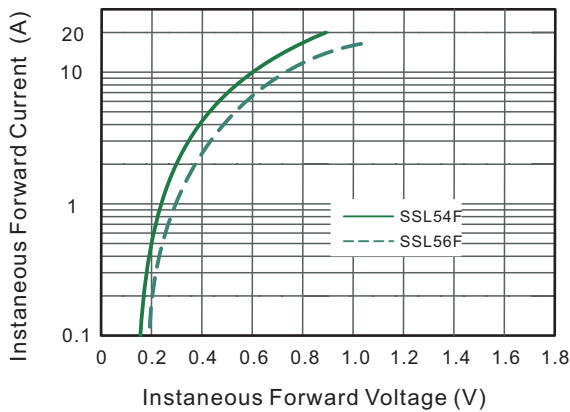


Fig.4 Typical Junction Capacitance

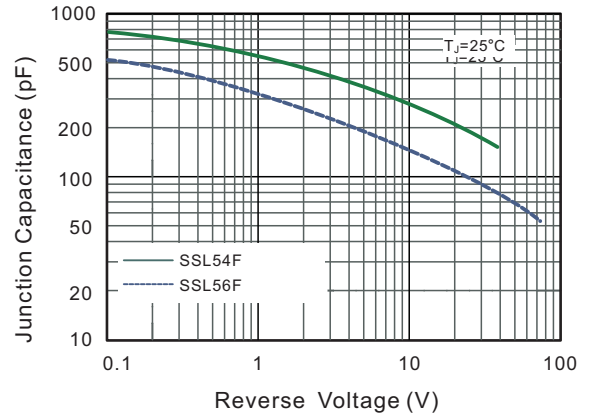


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

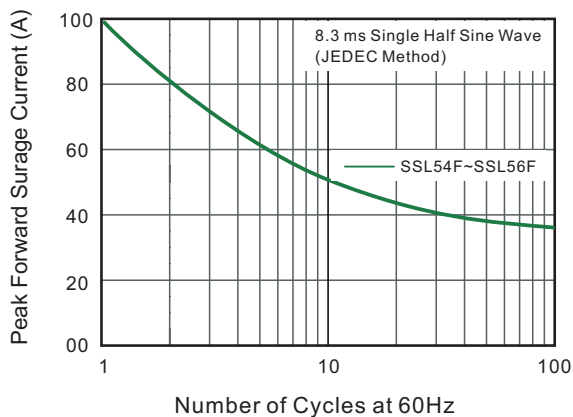
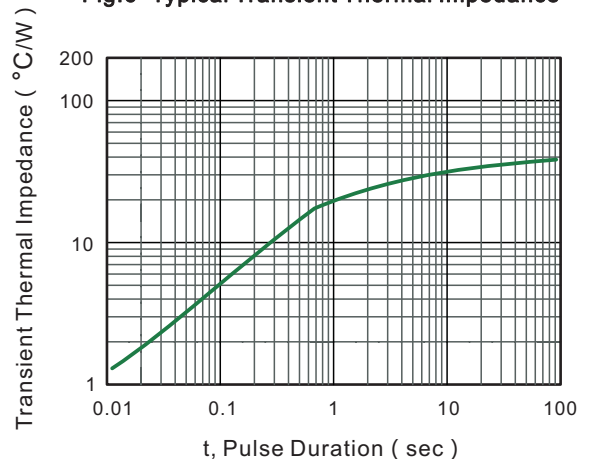


Fig.6- Typical Transient Thermal Impedance



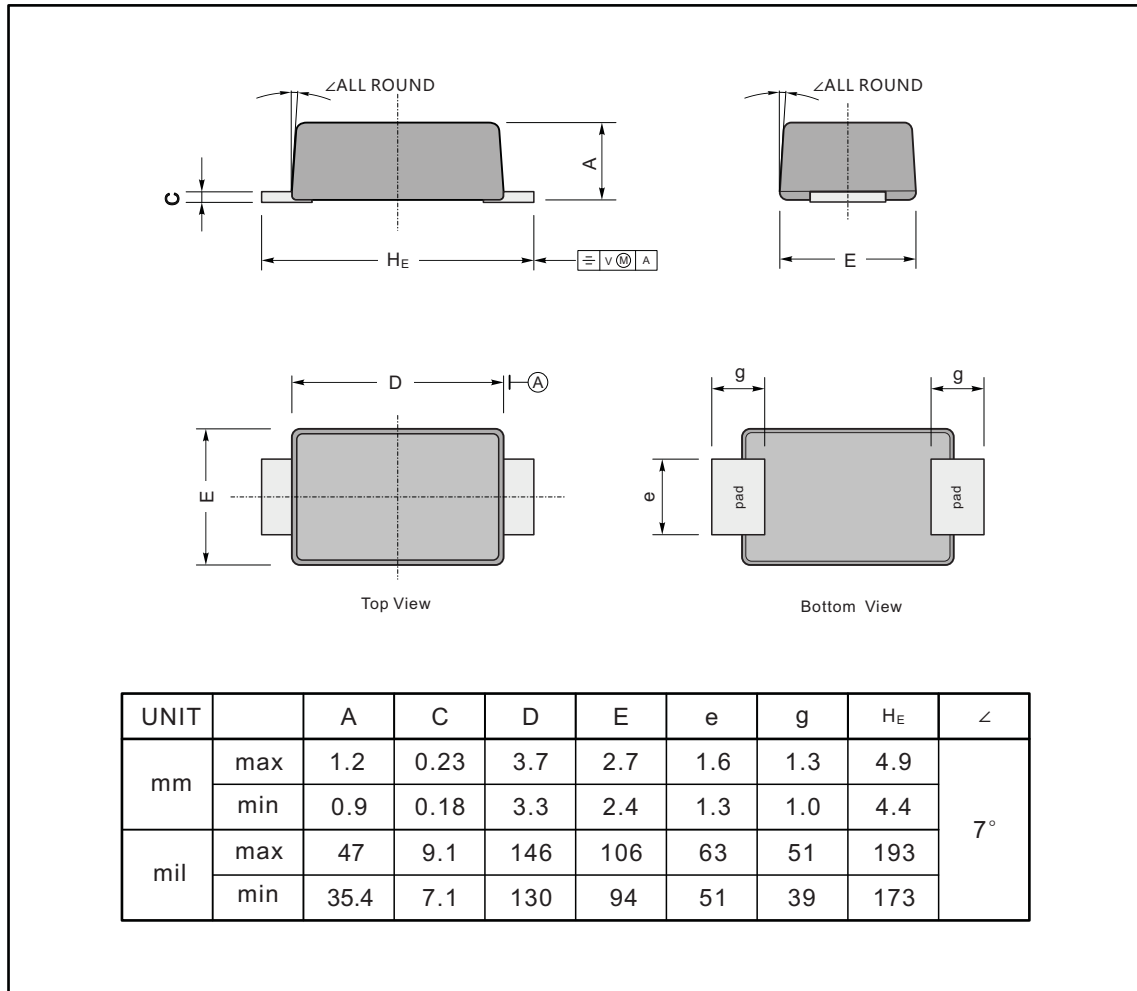


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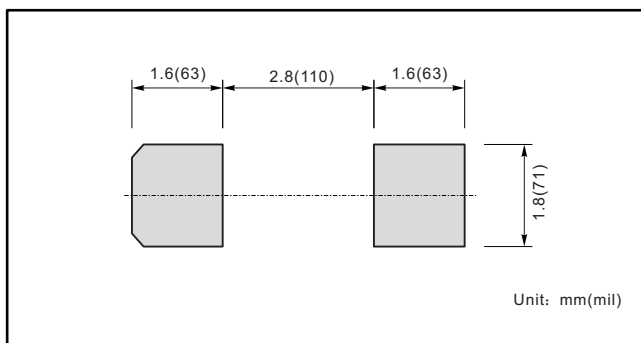
## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SMAF



### The recommended mounting pad size



### Marking

| Type number | Marking code |
|-------------|--------------|
| SSL54F      | SSL54        |
| SSL56F      | SSL56        |

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