# SSL54F THRU SSL56F

## Surface Mount Schottky Barrier Rectifier
## Reverse Voltage - 20 to 60V
## Forward Current - 5.0A

**PINNING**

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

Simplified outline SMAF and symbol

## 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

**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°C<br>at Rated DC Reverse Voltage $T_a$ =100°C | $I_R$ | 1.0<br>50 | | mA |
| Typical Junction Capacitance 1) | $C_j$ | 800 | 500 | pF |
| Typical Thermal Resistance 2) | $R_{\theta JA}$ | 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.

Fig.1 Forward Current Derating Curve

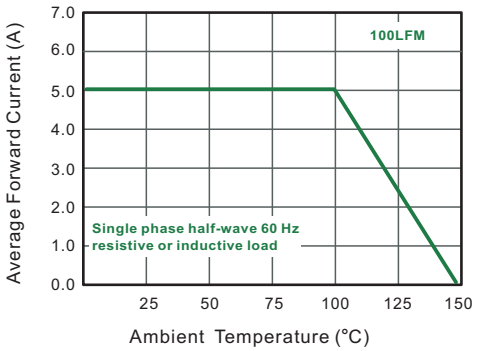



Fig.2 Typical Reverse Characteristics

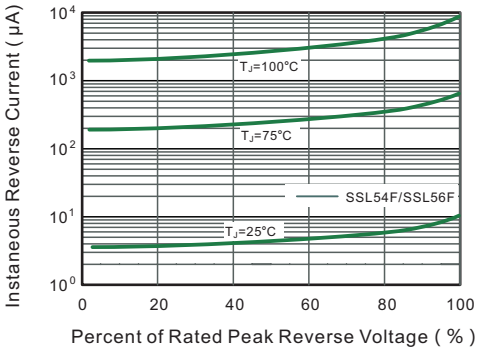



Fig.3 Typical Forward Characteristic

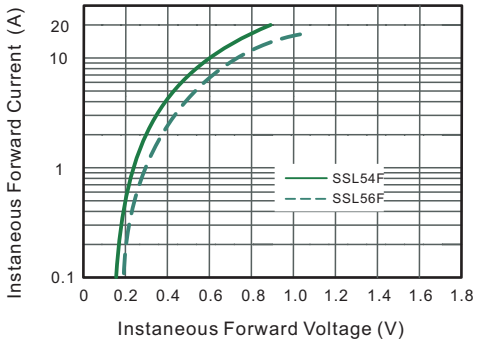



Fig.4 Typical Junction Capacitance

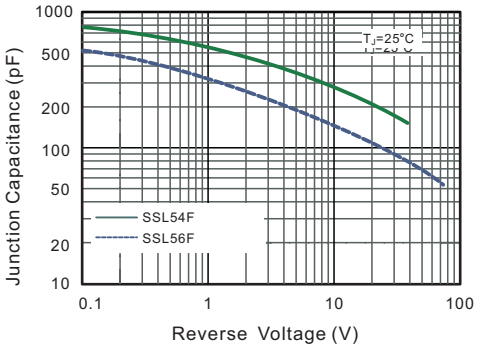



Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

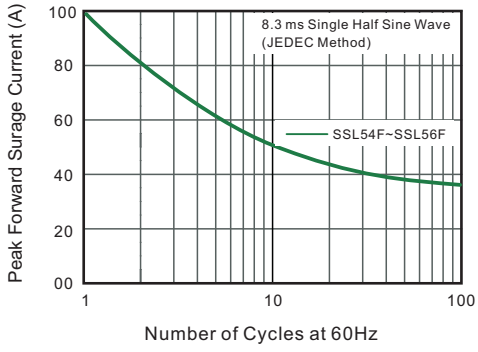
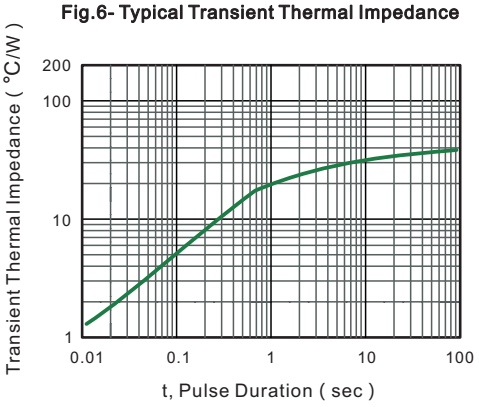
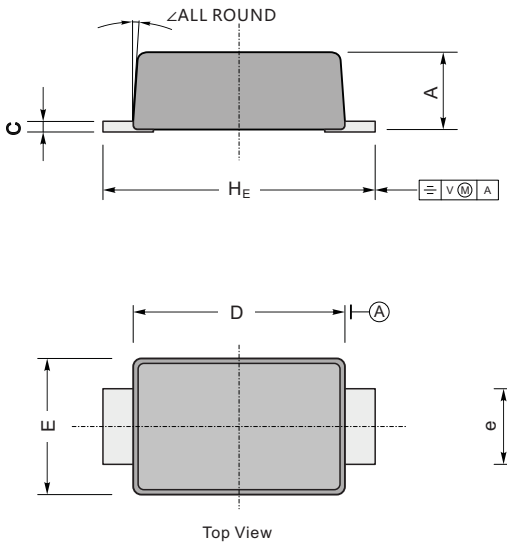



Fig.6- Typical Transient Thermal Impedance



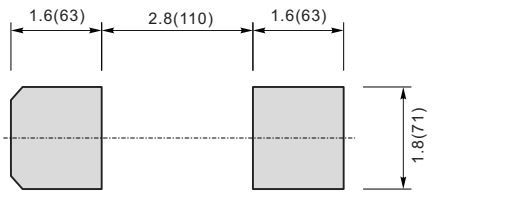
## PACKAGE OUTLINE

**Plastic surface mounted package; 2 leads** SMAF




| UNIT | | A | C | D | E | e | g | $H_E$ | ∠ |
|---|---|---|---|---|---|---|---|---|---|
| mm | max | 1.3 | 0.23 | 3.7 | 2.7 | 1.6 | 1.3 | 4.9 | 7° |
| | min | 1.1 | 0.18 | 3.3 | 2.4 | 1.3 | 1.0 | 4.4 | |
| mil | max | 51 | 9.1 | 146 | 106 | 63 | 51 | 193 | |
| | min | 43 | 7.1 | 130 | 94 | 51 | 39 | 173 | |

### The recommended mounting pad size




### Marking

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