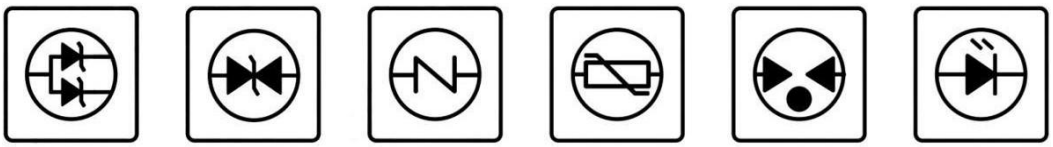
MSKSEMI 美森科
SEMICONDUCTOR




# SL54F-MS

**Product specification**

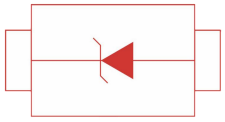
## Features

- 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 application

## MECHANICAL DATA

- Case: SMAF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight:27mg / 0.00095oz

## Reference News

| SMAF | Schematic Diagram | Marking |
|---|---|---|
|  |  | SSL54 |

## Maximum Ratings and Electrical characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

| Parameter | Symbols | SSL54F | Units |
|---|---|---|---|
| Maximum Repetitive Peak Reverse Voltage | $V_{RRM}$ | 40 | V |
| Maximum RMS voltage | $V_{RMS}$ | 28 | V |
| Maximum DC Blocking Voltage | $V_{DC}$ | 40 | V |
| Maximum Average Forward Rectified Current at $T_c$= 100℃ | $I_{F(AV)}$ | 5 | A |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load | $I_{FSM}$ | 150 | A |
| Maximum Instantaneous Forward Voltage at 5A | $V_F$ | 0.45 | V |
| Maximum DC Reverse Current $T_a$ = 25℃<br>at Rated DC Blocking Voltage $T_a$ = 100℃ | $I_R$ | 1.0<br>50 | mA |
| Typical Junction Capacitance (1) | $C_j$ | 800 | pF |
| Typical Thermal Resistance (2) | $R_{\theta JA}$ | 45 | ℃/W |
| Operating Junction Temperature Range | $T_j$ | -55 ~ +150 | ℃ |
| Storage Temperature Range | $T_{stg}$ | -55 ~ +150 | ℃ |

(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.

Fig.1 Forward Current Derating Curve

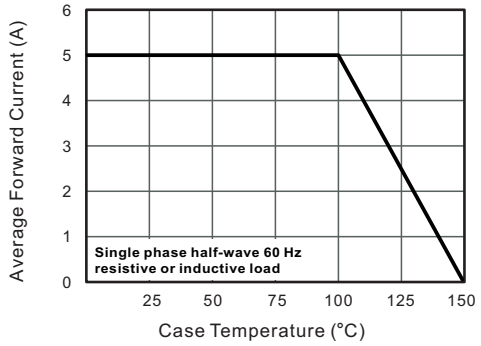



Fig.2 Typical Reverse Characteristics

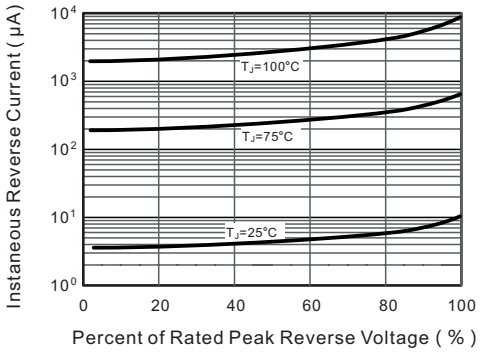



Fig.3 Typical Forward Characteristic

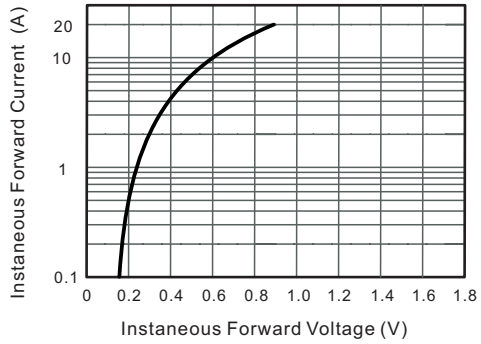



Fig.4 Typical Junction Capacitance

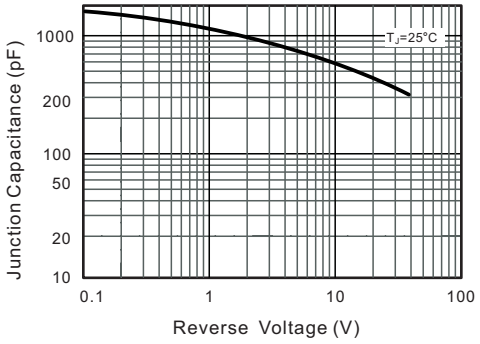



Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

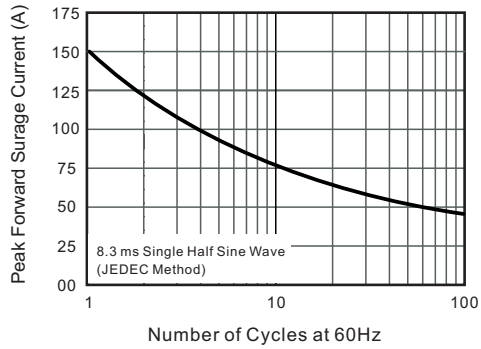
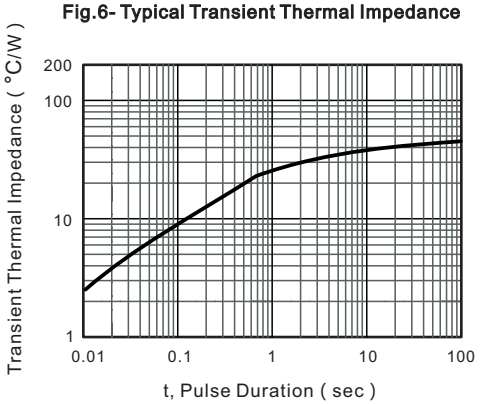



Fig.6- Typical Transient Thermal Impedance



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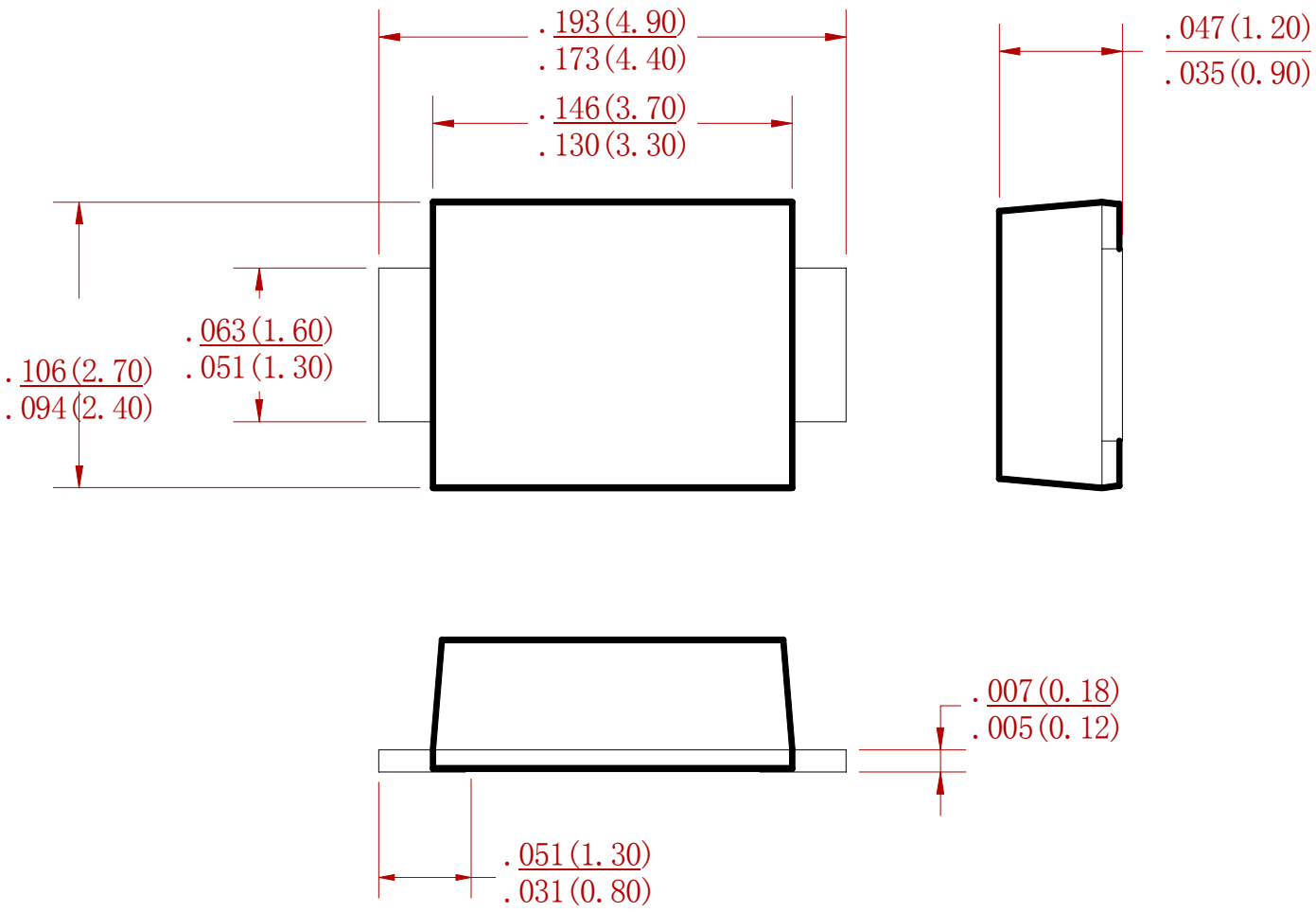


Dimensions in inches and (millimeters)

## REEL SPECIFICATION

| P/N | PKG | QTY |
|---|---|---|
| SL54F-MS | SMAF | 3000 |

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