



## Features

- Average Forward Current:  $I_{F(AV)}=5A$
- Polarity: Color band denotes cathode



SMAF

## Package Marking and Ordering Information

| Product ID     | Pack | Marking | Qty(PCS) |
|----------------|------|---------|----------|
| SX54F_R1_00001 | SMAF | SS54F   | 3000     |



## Maximum Ratings (Ta=25°C unless otherwise noted)

| Item                                     | Symbol      | Test Conditions                                | Limit      | Unit |
|------------------------------------------|-------------|------------------------------------------------|------------|------|
| Repetitive Peak Reverse Voltage          | $V_{RRM}$   |                                                | 40         | V    |
| Maximum RMS Voltage                      | $V_{RMS}$   |                                                | 28         | V    |
| Average Forward Current                  | $I_{F(AV)}$ | 60Hz Half-sine wave,<br>Resistance load, FIG.1 | 5.0        | A    |
| Surge(Non-repetitive)<br>Forward Current | $I_{FSM}$   | 60Hz Half-sine wave,<br>1 cycle, Ta=25°C       | 150        | A    |
| Junction Temperature                     | $T_J$       |                                                | -55 ~ +125 | °C   |
| Storage Temperature                      | $T_{STG}$   |                                                | -55 ~ +150 | °C   |

## Electrical Characteristics (Ta=25°C unless otherwise specified)

| Item                           | Symbol           | Test Condition                |                    | Limit | Unit     |
|--------------------------------|------------------|-------------------------------|--------------------|-------|----------|
| Peak Forward Voltage           | $V_F$            | $I_F=5.0A$                    |                    | 0.55  | V        |
| Peak Reverse<br>Current        | $I_{RRM1}$       | $V_{RM}=V_{RRM}$              | $T_a=25^{\circ}C$  | 0.5   | mA       |
|                                | $I_{RRM2}$       |                               | $T_a=100^{\circ}C$ | 10    |          |
| Thermal<br>Resistance(Typical) | $R_{\theta J-A}$ | Between junction and ambient  |                    | 55    | °C/<br>W |
|                                | $R_{\theta J-L}$ | Between junction and terminal |                    | 17    |          |

### Notes:

Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas



## Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

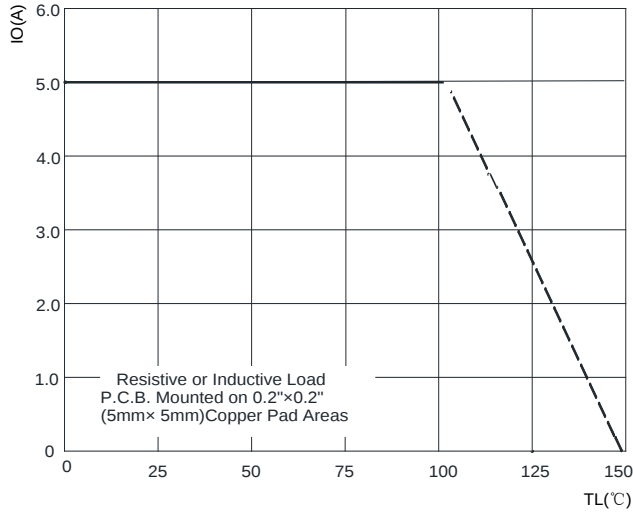


FIG.2: MAXIMUM NON-REPETITIVE FORWARD URGE CURRENT

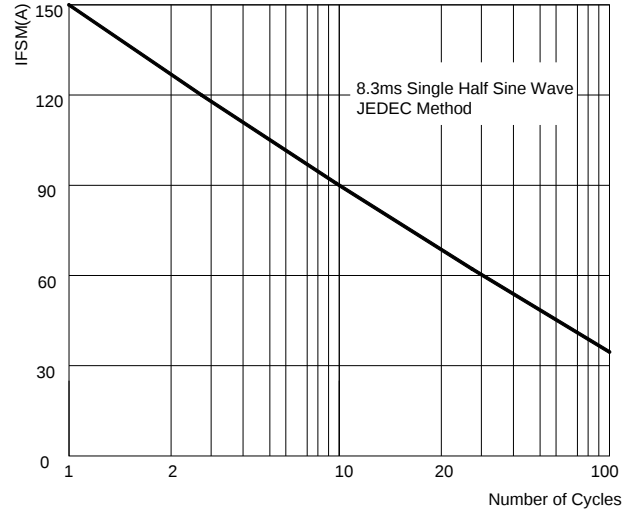


FIG.3: TYPICAL FORWARD CHARACTERISTICS

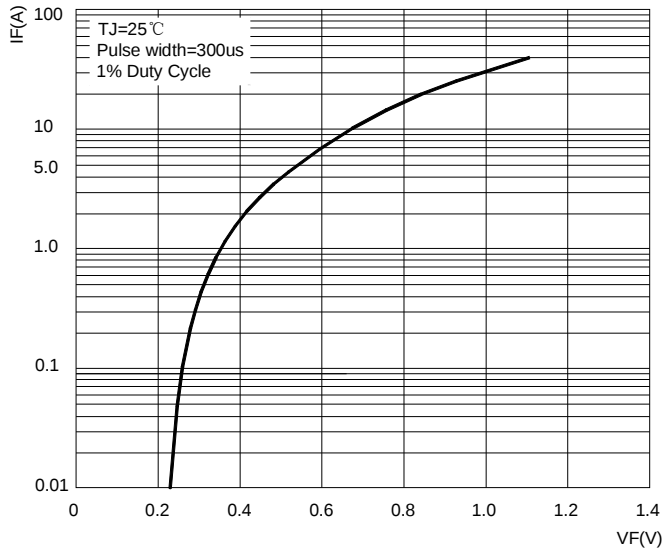
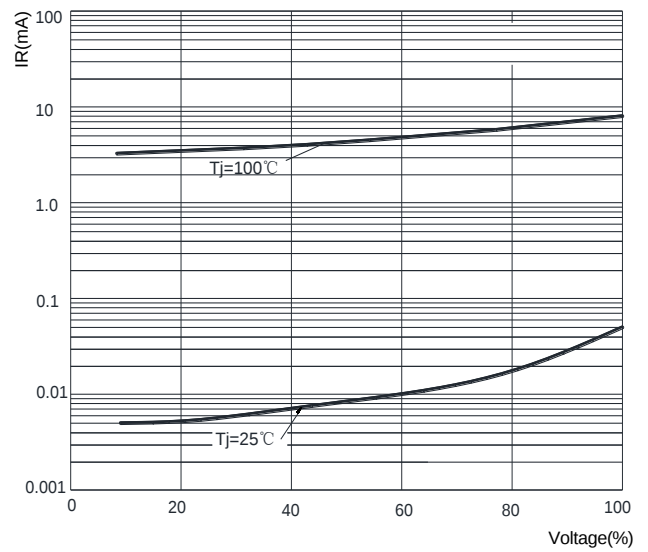
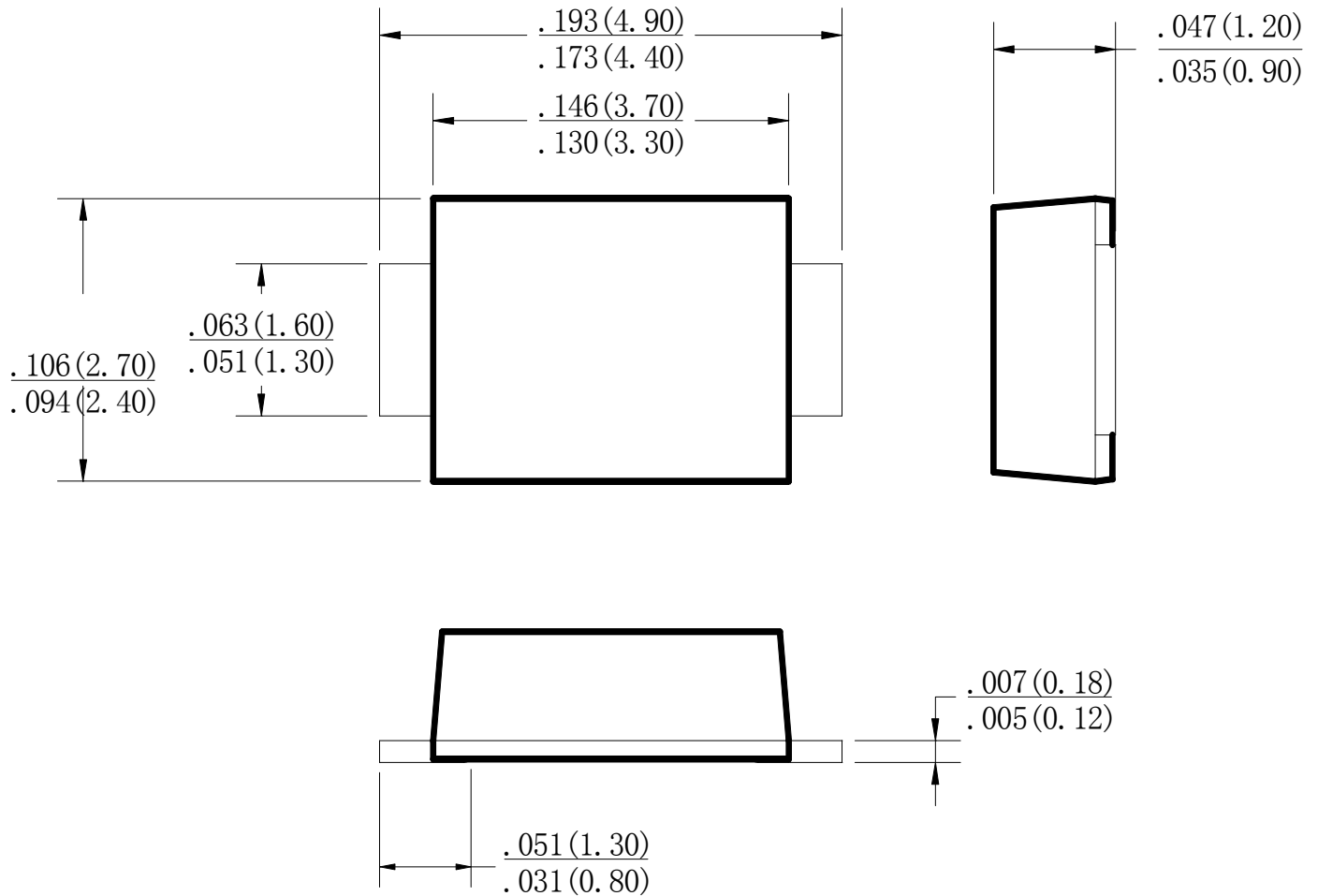


FIG.4: TYPICAL REVERSE CHARACTERISTICS





## SMAF Package Outline Dimensions



Dimensions in inches and (millimeters)



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