## Features

$I_{F(AV)}$ 5A

$V_{RRM}$ 40V

High surge current capability

Polarity: Color band denotes cathode

Low peak forward voltage

SMA


**Marking:** SS54L

## Applications

Rectifier

## Limiting Values(Absolute Maximum Rating)

| Item | Symbol | Unit | Test Conditions | SS54L |
|---|---|---|---|---|
| Repetitive Peak Reverse Voltage | $V_{RRM}$ | V | | 40 |
| Maximum RMS Voltage | $V_{RMS}$ | V | | 28 |
| Average Forward Current | $I_{F(AV)}$ | A | 60Hz Half-sine wave , Resistance load | 5.0 |
| Surge(Non-repetitive)Forward Current | $I_{FSM}$ | A | 60Hz Half-sine wave , 1 cycle, Ta=25℃ | 120 |
| Junction Temperature | $T_J$ | ℃ | | -55 ~ +150 |
| Storage Temperature | $T_{STG}$ | ℃ | | -55 ~ +150 |

## Electrical Characteristics (T=25℃Unless otherwise specified)

| Item | Symbol | Unit | Test Condition | | SS54L |
|---|---|---|---|---|---|
| Peak Forward Voltage | $V_F$ | V | $I_F$=5.0A | Ta=25℃ | 0.45 |
| Peak Reverse Current | $I_{RRM1}$ | mA | $V_{RM}=V_{RRM}$ | Ta=25℃ | 0.3 |
| | $I_{RRM2}$ | | | Ta=100℃ | 50 |
| Thermal Resistance(Typical) | $R_{\theta J-A}$ | ℃/W | Between junction and ambient | | 75 |
| | $R_{\theta J-L}$ | | Between junction and lead | | 27 |
| Juction Capacitance (Typical) | Cj | pF | Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C | | 420 |

## Notes:

Thermal resistance from junction to ambient and from juction to lead mounted on FR4 PCB double sided copper mini pad

## Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

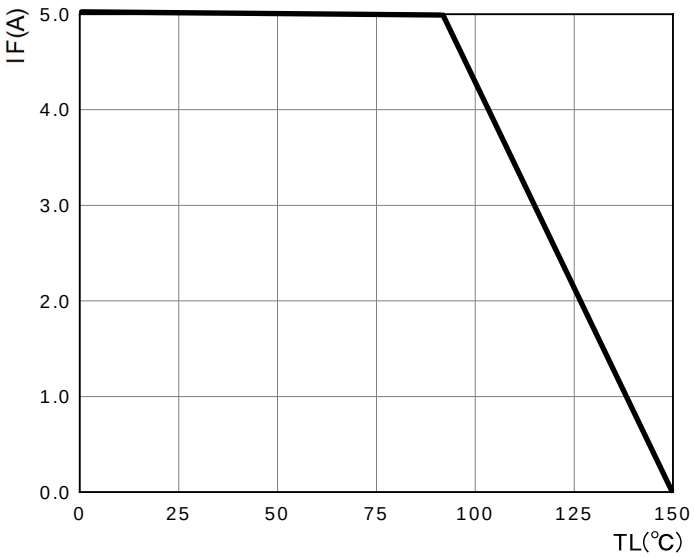



FIG 2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT


FIG.3: TYPICAL FORWARD CHARACTERISTICS

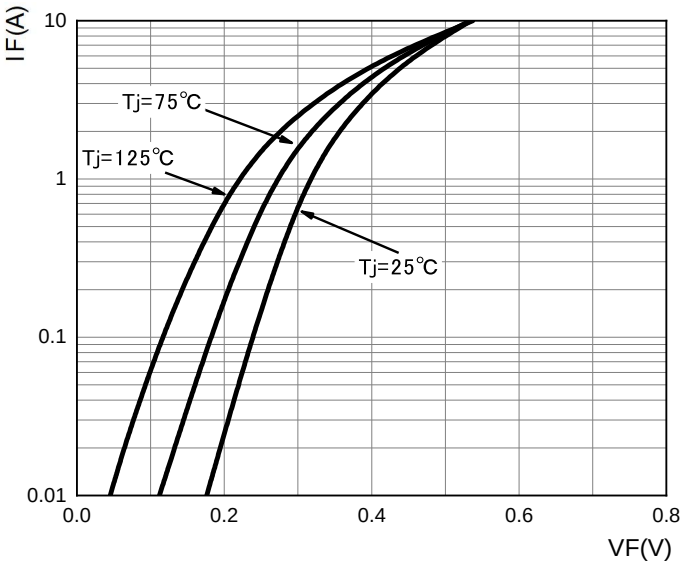
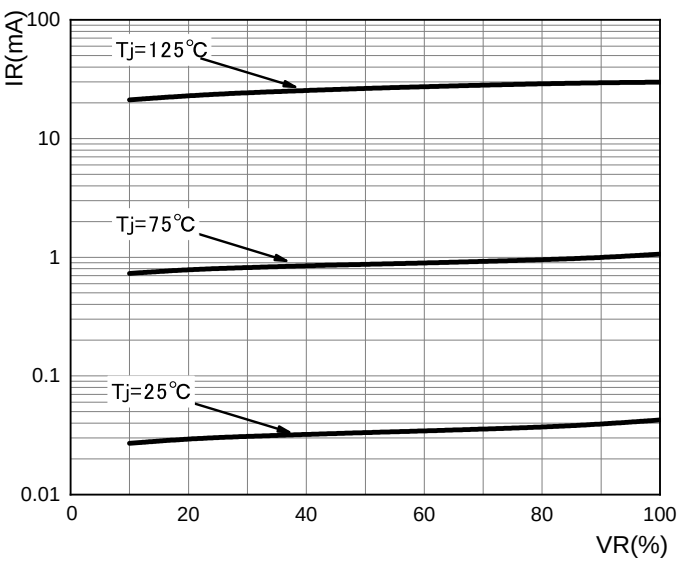
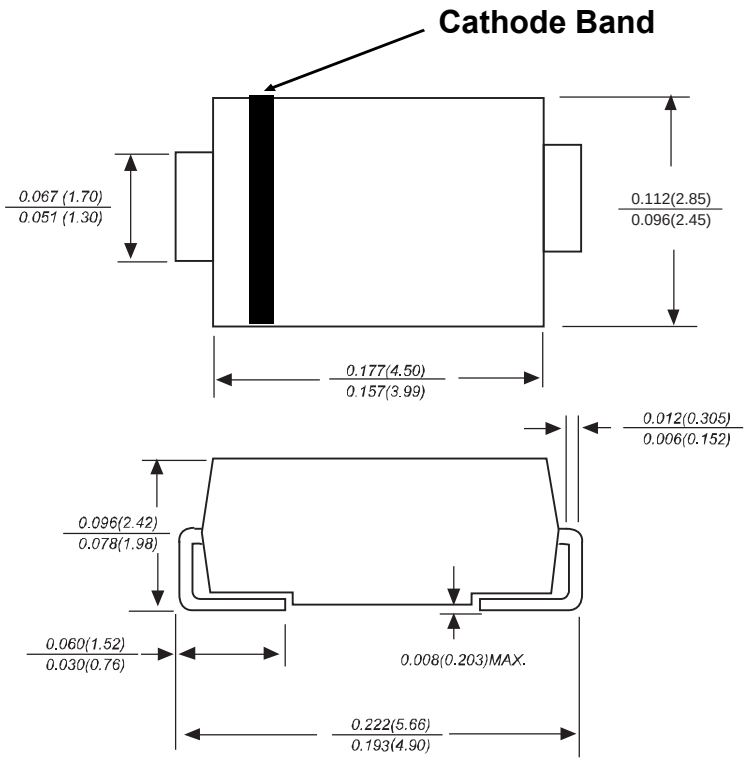



FIG.4: TYPICAL REVERSE CHARACTERISTICS

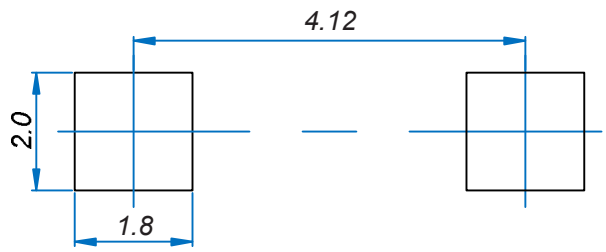


## SMA Package Outline Dimensions




*Dimensions in inches and (millimeters)*

## SMA Suggested Pad Layout




**Note:**
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.