

## Features

- $I_{F(AV)}$  5A
- $V_{RRM}$  20V-200V
- High surge current capability
- Polarity: Color band denotes cathode

## Applications

- Rectifier

## Marking

- SS5X
- X : From 2 To 20

SMA



## Limiting Values(Absolute Maximum Rating)

| Item                                 | Symbol      | Unit             | Test Conditions                                      | SS5        |    |    |    |    |    |     |     |     |  |
|--------------------------------------|-------------|------------------|------------------------------------------------------|------------|----|----|----|----|----|-----|-----|-----|--|
|                                      |             |                  |                                                      | 2          | 3  | 4  | 5  | 6  | 8  | 10  | 15  | 20  |  |
| Repetitive Peak Reverse Voltage      | $V_{RRM}$   | V                |                                                      | 20         | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 |  |
| Maximum RMS Voltage                  | $V_{RMS}$   | V                |                                                      | 14         | 21 | 28 | 35 | 42 | 56 | 70  | 105 | 140 |  |
| 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, $T_a=25^\circ\text{C}$ | 150        |    |    |    |    |    |     |     |     |  |
| Junction Temperature                 | $T_J$       | $^\circ\text{C}$ |                                                      | -55 ~ +150 |    |    |    |    |    |     |     |     |  |
| Storage Temperature                  | $T_{STG}$   | $^\circ\text{C}$ |                                                      | -55 ~ +150 |    |    |    |    |    |     |     |     |  |

## Electrical Characteristics (T =25°C Unless otherwise specified)

| Item                           | Symbol                | Unit | Test Condition                                            | SS5                  |      |     |      |   |      |    |      |    |  |
|--------------------------------|-----------------------|------|-----------------------------------------------------------|----------------------|------|-----|------|---|------|----|------|----|--|
|                                |                       |      |                                                           | 2                    | 3    | 4   | 5    | 6 | 8    | 10 | 15   | 20 |  |
| Peak Forward Voltage           | V <sub>F</sub>        | V    | I <sub>F</sub> =5.0A                                      |                      | 0.55 |     | 0.70 |   | 0.85 |    | 0.95 |    |  |
| Peak Reverse Current           | I <sub>RRM1</sub>     | mA   | V <sub>RM</sub> =V <sub>RRM</sub>                         | T <sub>A</sub> =25°C |      | 0.5 |      |   | 0.1  |    |      |    |  |
|                                | T <sub>A</sub> =100°C |      |                                                           | 10                   |      |     | 5    |   |      |    |      |    |  |
| Thermal Resistance(Typical)    | R <sub>θJ-C</sub>     | °C/W | Between junction and case                                 |                      | 7.0  |     |      |   |      |    |      |    |  |
|                                | R <sub>θJ-A</sub>     |      | Between junction and ambient                              |                      | 52.5 |     |      |   |      |    |      |    |  |
|                                | R <sub>θJ-L</sub>     |      | Between junction and terminal                             |                      | 16   |     |      |   |      |    |      |    |  |
| Junction Capacitance (Typical) | Cj                    | pF   | Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C |                      | 260  |     | 220  |   | 130  |    | 100  | 80 |  |

## Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

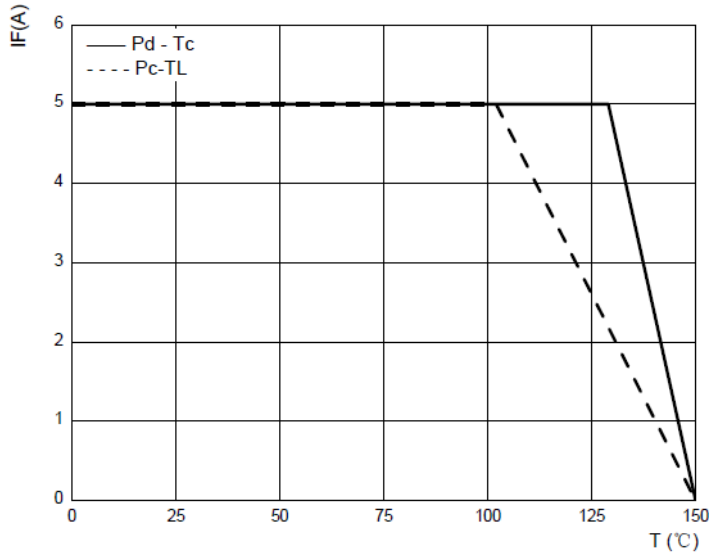
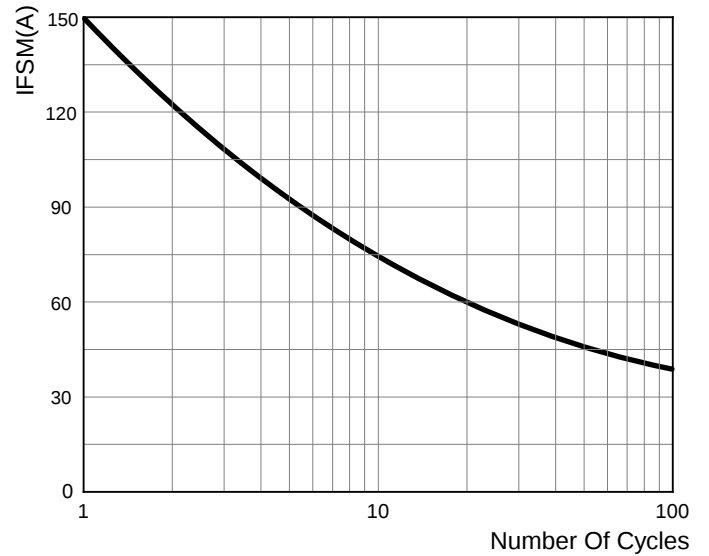
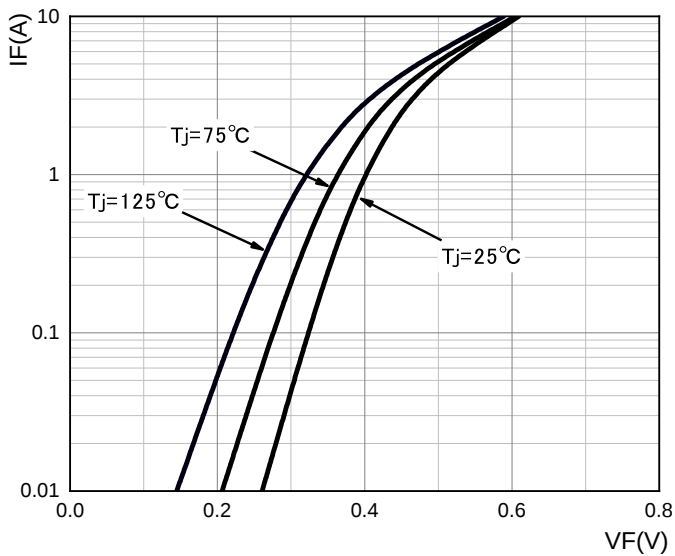


FIG 2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



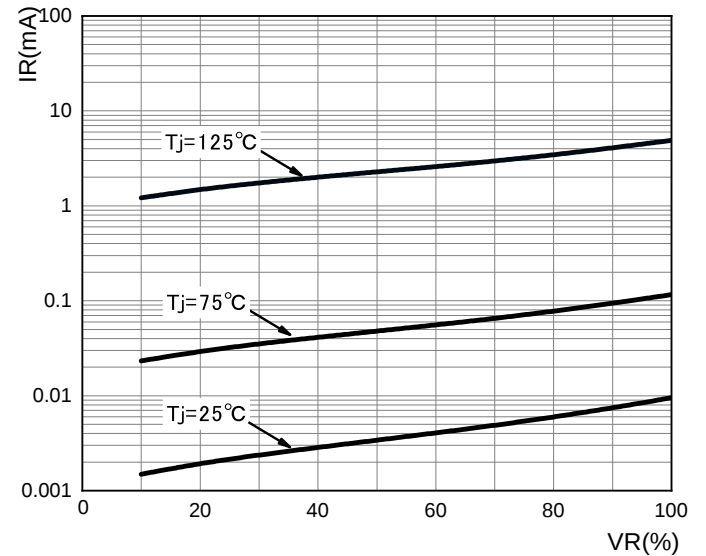
SS52-SS54

FIG.3: TYPICAL FORWARD CHARACTERISTICS



SS52-SS54

FIG.4: TYPICAL REVERSE CHARACTERISTICS



## SMA Package Outline Dimensions

