

**Features**
 $I_{F(AV)}$  3A

 $V_{RRM}$  20V-200V

High surge current capability

Polarity: Color band denotes cathode

**Applications**

Rectifier

**SMA**

**Marking: SS3X**

X : 2 To 20

**Limiting values(Absolute Maximum Rating)**

| Item                                 | Symbol             | Unit | Test Conditions                          | SS3        |    |    |    |    |    |     |     |     |
|--------------------------------------|--------------------|------|------------------------------------------|------------|----|----|----|----|----|-----|-----|-----|
|                                      |                    |      |                                          | 2          | 3  | 4  | 5  | 6  | 8  | 10  | 15  | 20  |
| Repetitive Peak Reverse Voltage      | V <sub>RRM</sub>   | V    |                                          | 20         | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 |
| Maximum RMS VOltagE                  | V <sub>RMS</sub>   | V    |                                          | 14         | 21 | 28 | 35 | 42 | 56 | 70  | 105 | 140 |
| Average Forward Current              | I <sub>F(AV)</sub> | A    | 60Hz Half-sine wave ,<br>Resistance load | 3.0        |    |    |    |    |    |     |     |     |
| Surge(Non-repetitive)Forward Current | I <sub>FSM</sub>   | A    | 60Hz Half-sine wave ,<br>1 CYCle, Ta=25℃ | 80         |    |    |    |    |    |     |     |     |
| Junction Temperature                 | T <sub>J</sub>     | ℃    |                                          | -55~+150   |    |    |    |    |    |     |     |     |
| Storage Temperature                  | T <sub>STG</sub>   | ℃    |                                          | -55 ~ +150 |    |    |    |    |    |     |     |     |

**Electrical Characteristics ( $T = 25^{\circ}\text{C}$  Unless otherwise specified)**

| Item                          | Symbol            | Unit     | Test Condition                                            |         | SS3  |   |   |      |     |      |    |      |    |
|-------------------------------|-------------------|----------|-----------------------------------------------------------|---------|------|---|---|------|-----|------|----|------|----|
|                               |                   |          |                                                           |         | 2    | 3 | 4 | 5    | 6   | 8    | 10 | 15   | 20 |
| Peak Forward Voltage          | V <sub>F</sub>    | V        | I <sub>F</sub> =3.0A                                      |         | 0.55 |   |   | 0.70 |     | 0.85 |    | 0.95 |    |
| Peak Reverse Current          | I <sub>RRM1</sub> | mA       | V <sub>RM</sub> =V <sub>RRM</sub>                         | Ta=25°C | 0.5  |   |   |      | 0.1 |      |    |      |    |
|                               | Ta=100°C          |          |                                                           | 10      |      |   |   | 5.0  |     |      |    |      |    |
| Thermal Resistance(Typical)   | R <sub>θJ-A</sub> | °C/<br>W | Between junction and ambient                              |         | 75   |   |   |      |     |      |    |      |    |
|                               | R <sub>θJ-L</sub> |          | Between junction and terminal                             |         | 27   |   |   |      |     |      |    |      |    |
| Juction Capacitance (Typical) | Cj                | pF       | Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C |         | 146  |   |   | 117  |     | 85   |    | 66   | 57 |

**Notes:**

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

## Typical characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

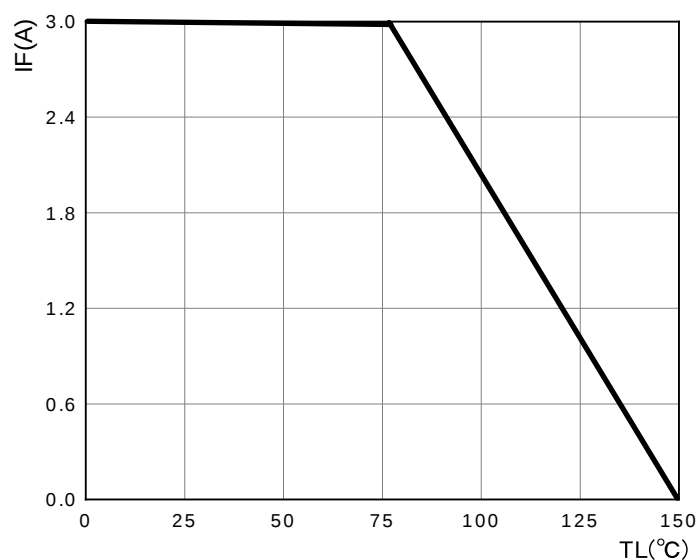
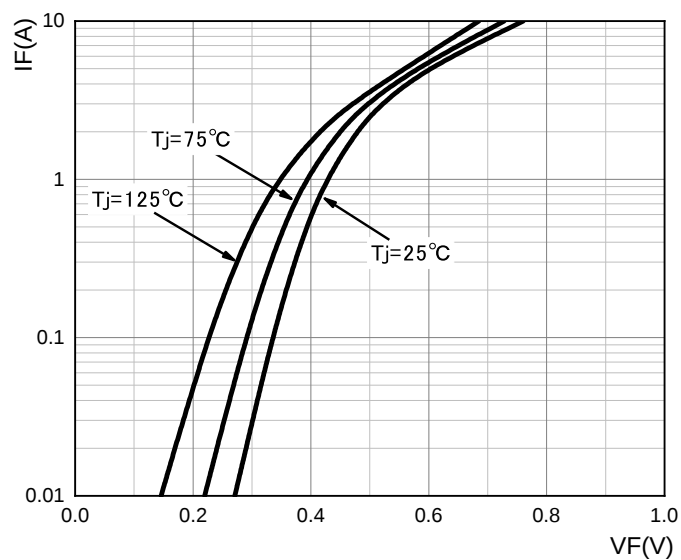


FIG 2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



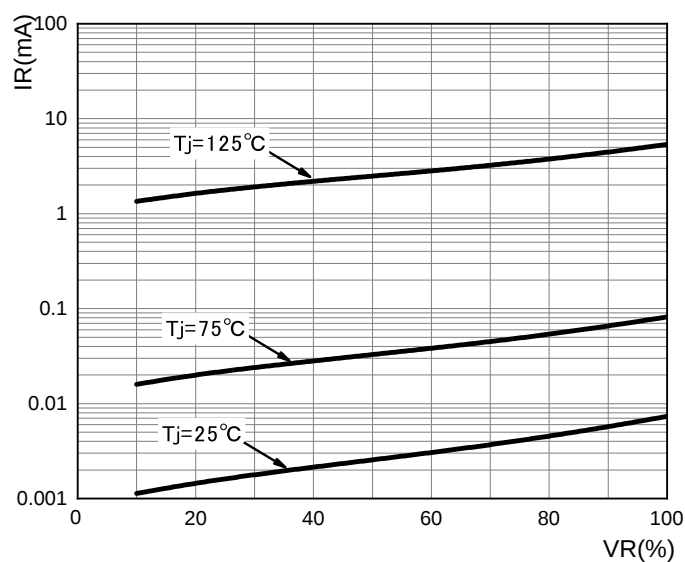
SS32-SS34

FIG.3: TYPICAL FORWARD CHARACTERISTICS



SS32-SS34

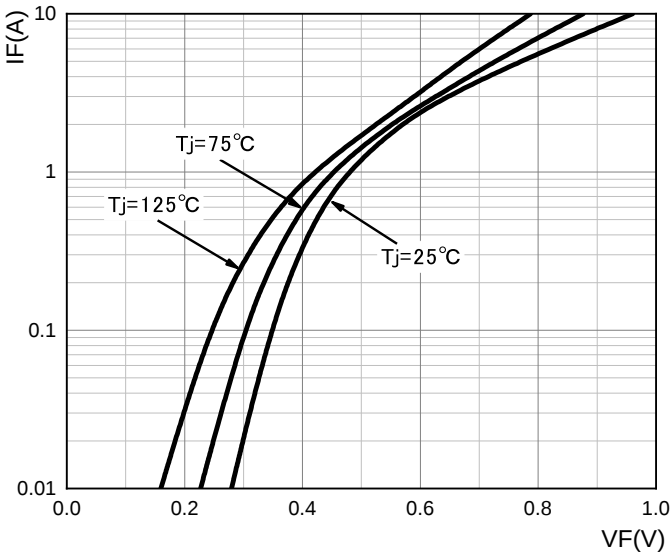
FIG.4: TYPICAL REVERSE CHARACTERISTICS



Typical characteristics

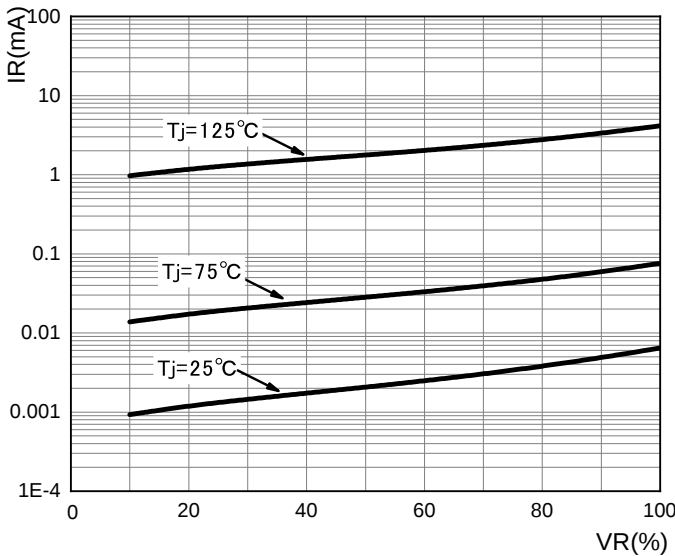
SS35-SS36

FIG.5: TYPICAL FORWARD CHARACTERISTICS



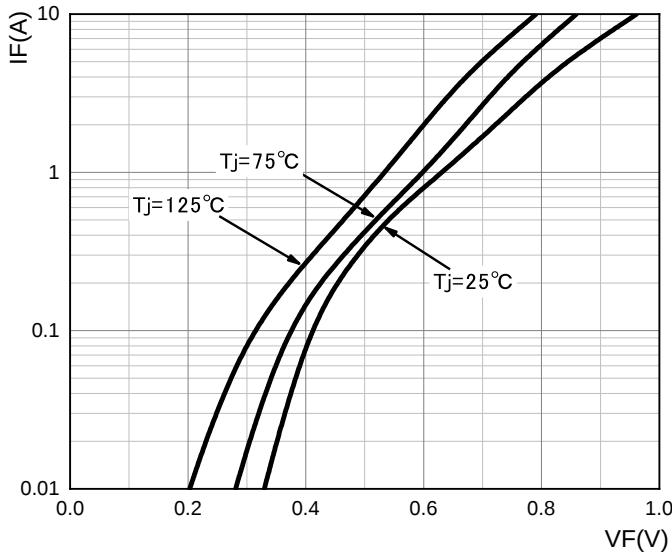
SS35-SS36

FIG.6: TYPICAL REVERSE CHARACTERISTICS



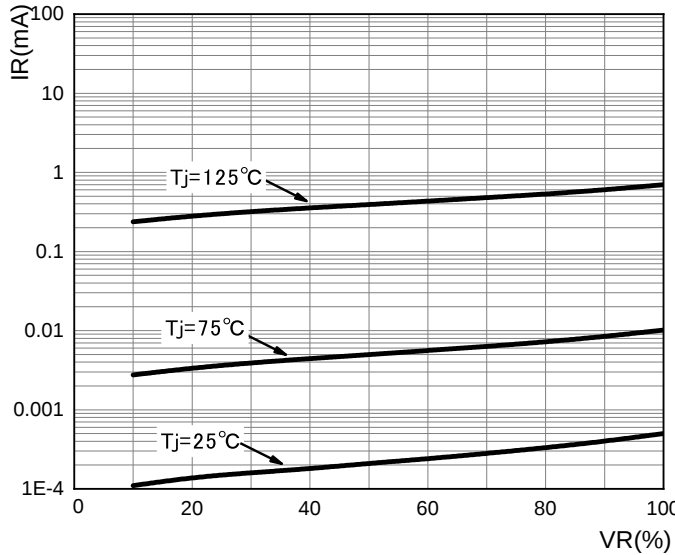
SS38-SS310

FIG.7: TYPICAL FORWARD CHARACTERISTICS



SS38-SS310

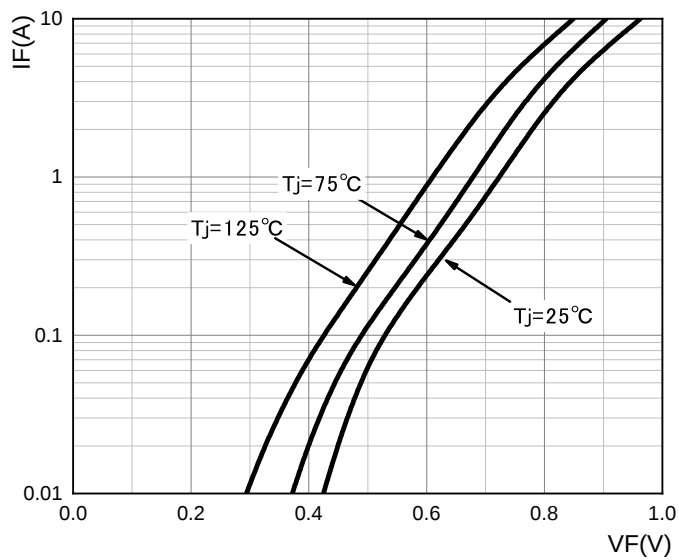
FIG.8: TYPICAL REVERSE CHARACTERISTICS



## Typical characteristics

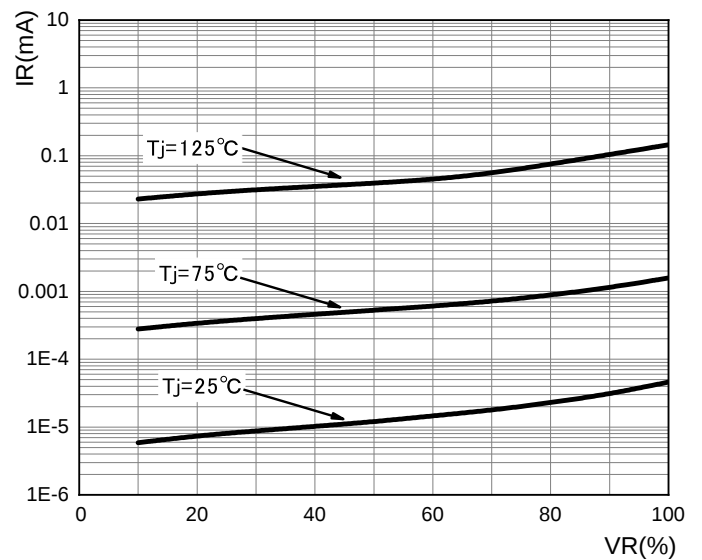
SS315

FIG.9: TYPICAL FORWARD CHARACTERISTICS



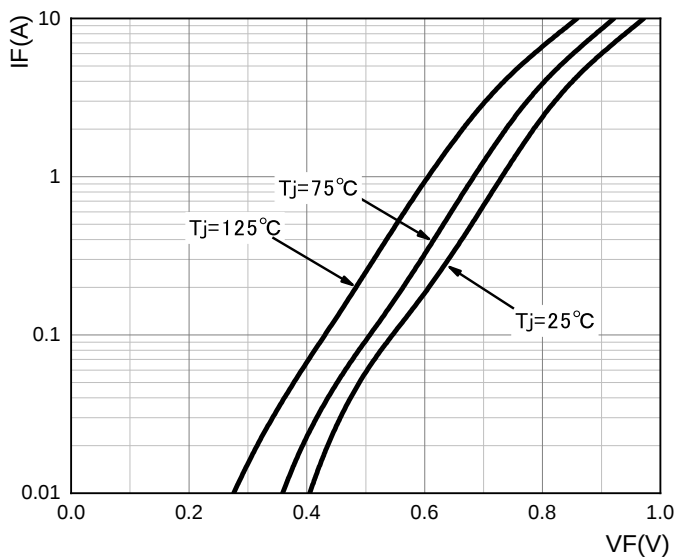
SS315

FIG.10: TYPICAL REVERSE CHARACTERISTICS



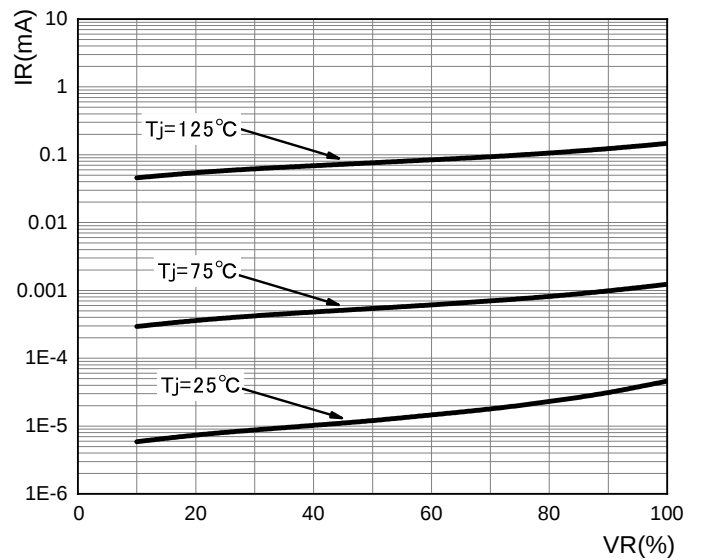
SS320

FIG.11: TYPICAL FORWARD CHARACTERISTICS

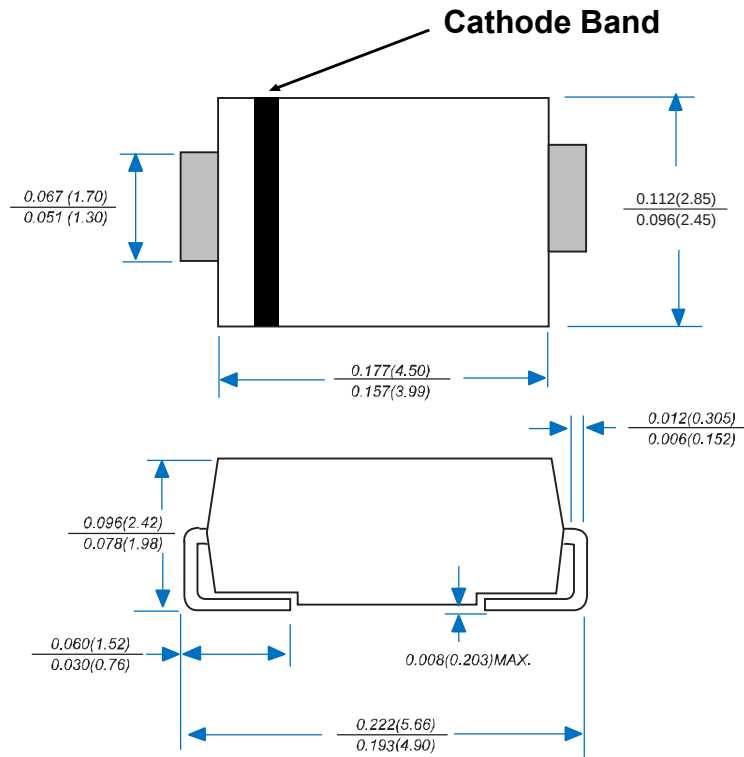


SS320

FIG.12: TYPICAL REVERSE CHARACTERISTICS

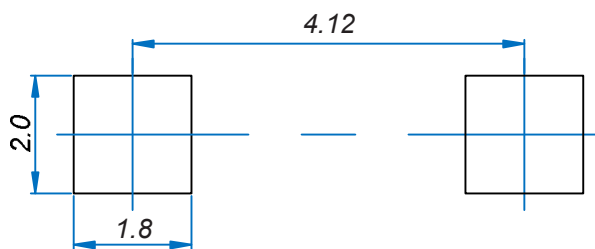


## SMA Package outline Dimensions



Dimensions in inches and (millimeters)

## SMA Suggested pad Layout



### Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05$ mm.
3. The pad layout is for reference purposes only.