

## Features

- $I_{F(AV)}$  1A
- $V_{RRM}$  50V-1000V
- High surge current capability
- Polarity: Color band denotes cathode

## Applications

- Rectifier

## Marking

- MX
- X : From 1 To 7

SMA



## Limiting Values(Absolute Maximum Rating)

| Item                                             | Symbol         | Unit             | Test Conditions                                                 | M          |     |     |     |     |     |      |
|--------------------------------------------------|----------------|------------------|-----------------------------------------------------------------|------------|-----|-----|-----|-----|-----|------|
|                                                  |                |                  |                                                                 | 1          | 2   | 3   | 4   | 5   | 6   | 7    |
| Repetitive Peak Reverse Voltage                  | $V_{RRM}$      | V                |                                                                 | 50         | 100 | 200 | 400 | 600 | 800 | 1000 |
| Maximum RMS Voltage                              | $V_{RMS}$      | V                |                                                                 | 35         | 70  | 140 | 280 | 420 | 560 | 700  |
| Average Forward Current                          | $I_{F(AV)}$    | A                | 60Hz Half-sine wave,<br>Resistance load, $T_L=75^\circ\text{C}$ | 1.0        |     |     |     |     |     |      |
| Surge(Non-repetitive)Forward Current             | $I_{FSM}$      | A                | 60Hz Half-sine wave,<br>1 cycle, $T_a=25^\circ\text{C}$         | 30         |     |     |     |     |     |      |
| Operation Junction and Storage Temperature Range | $T_J, T_{STG}$ | $^\circ\text{C}$ |                                                                 | -55 ~ +150 |     |     |     |     |     |      |

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

| Item                        | Symbol           | Unit               | Test Condition                | M                       |   |   |   |   |   |   |
|-----------------------------|------------------|--------------------|-------------------------------|-------------------------|---|---|---|---|---|---|
|                             |                  |                    |                               | 1                       | 2 | 3 | 4 | 5 | 6 | 7 |
| Peak Forward Voltage        | $V_F$            | V                  | $I_F=1.0\text{A}$             | 1.0                     |   |   |   |   |   |   |
| Peak Reverse Current        | $I_{RRM1}$       | $\mu\text{A}$      | $V_{RM}=V_{RRM}$              | $T_a=25^\circ\text{C}$  |   |   |   |   |   |   |
|                             | $I_{RRM2}$       |                    |                               | $T_a=125^\circ\text{C}$ |   |   |   |   |   |   |
| Thermal Resistance(Typical) | $R_{\theta J-A}$ | $^\circ\text{C/W}$ | Between junction and ambient  | 55                      |   |   |   |   |   |   |
|                             | $R_{\theta J-L}$ |                    | Between junction and terminal | 25                      |   |   |   |   |   |   |

## Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

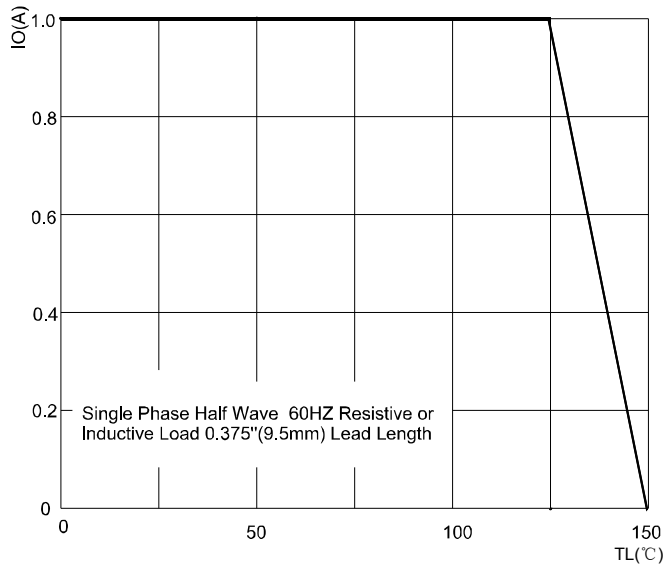


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

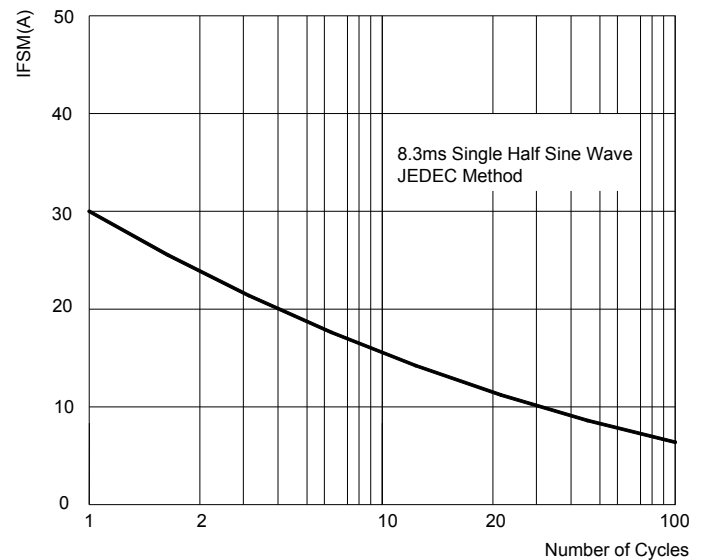


FIG.3: TYPICAL FORWARD CHARACTERISTICS

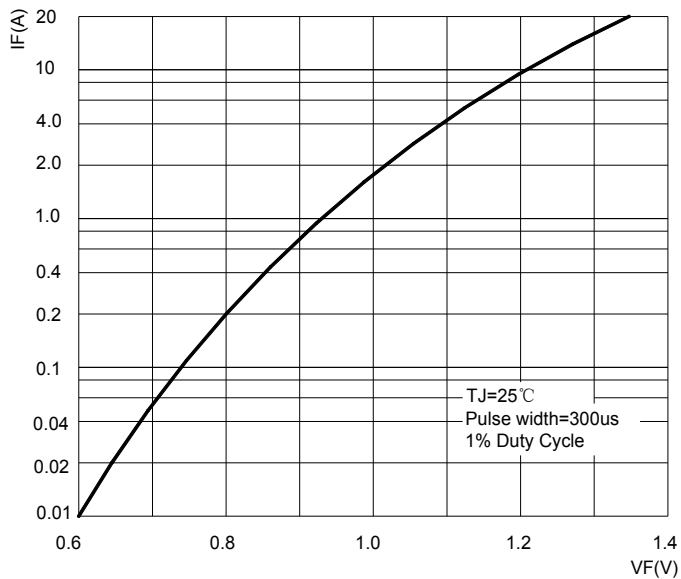
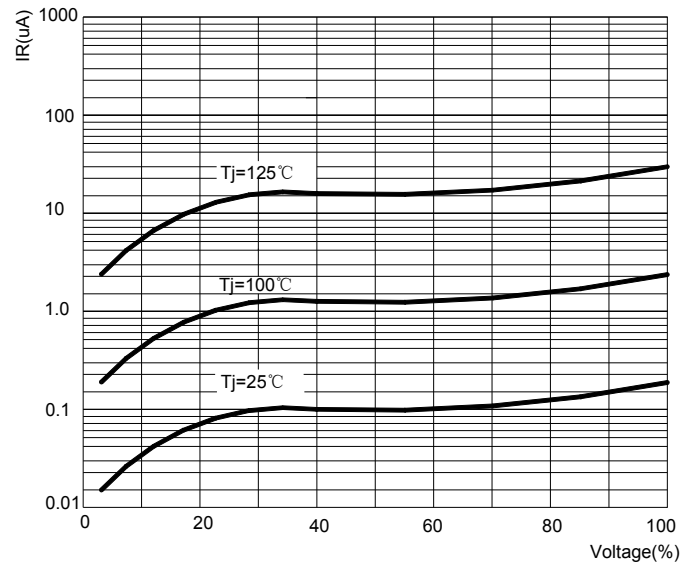


FIG.4: TYPICAL REVERSE CHARACTERISTICS



## SMA Package Outline Dimensions

