

# 3A, 300V Low Forward Voltage Schottky Rectifier

## FEATURES

- Ideal for automated placement
- Low power loss, high efficiency
- Low forward voltage drop
- Moisture sensitivity: level 1, per J-STD-020
- High temperature soldering guaranteed: 260°C/10 seconds
- RoHS compliant
- Halogen-free according to IEC 61249-2-21 definition

**SMA**

**RoHS  
COMPLIANT**
**HALOGEN  
FREE**

## MECHANICAL DATA

- Case: SMA
- Case material: molding compound meets UL 94V-0 flammability rating
- Polarity: color band denotes cathode end

## TYPICAL APPLICATION

General purpose use in rectification for SMPS, lighting, adapter, charger, home appliance, office equipment and telecommunication.

## MAXIMUM RATINGS

$T_A=25^{\circ}\text{C}$  unless otherwise noted

| Parameter  | Symbol      | Value       | Unit               |
|--|-------------|-------------|--------------------|
| Repetitive Peak Reverse Voltage  | $V_{RRM}$   | 300         | V                  |
| Average Forward Rectified Current  | $I_{F(AV)}$ | 3           | A                  |
| Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load) | $I_{FSM}$   | 120         | A                  |
| Operating Junction Temperature Range   | $T_J$       | -55 to +150 | $^{\circ}\text{C}$ |
| Storage Temperature Range  | $T_{STG}$   | -55 to +150 | $^{\circ}\text{C}$ |

## ELECTRICAL CHARACTERISTICS

$T_A=25^{\circ}\text{C}$  unless otherwise noted

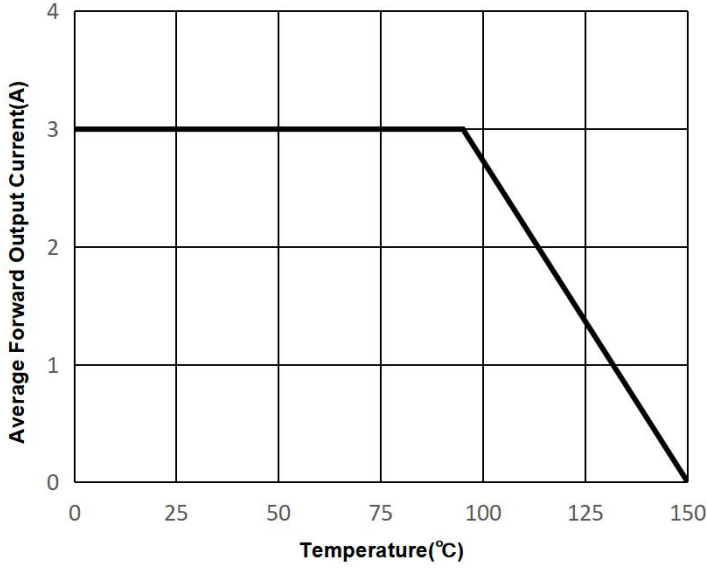
| Parameter                        | Test Conditions           | Symbol          | Value |      | Unit                        |
|----------------------------------|---------------------------|-----------------|-------|------|-----------------------------|
|                                  |                           |                 | Typ.  | Max. |                             |
| Forward Voltage@ $I_F=3\text{A}$ | $T_A=25^{\circ}\text{C}$  | $V_F$           | 0.83  | 0.86 | V                           |
|                                  | $T_A=125^{\circ}\text{C}$ |                 | 0.7   | 0.73 |                             |
| Reverse Current @ $V_{RRM}$      | $T_A=25^{\circ}\text{C}$  | $I_R$           | 1     | 10   | uA                          |
|                                  | $T_A=125^{\circ}\text{C}$ |                 | 0.6   | 5    | mA                          |
| Typical Thermal Resistance       |                           | $R_{\theta JA}$ | 90    |      | $^{\circ}\text{C}/\text{W}$ |

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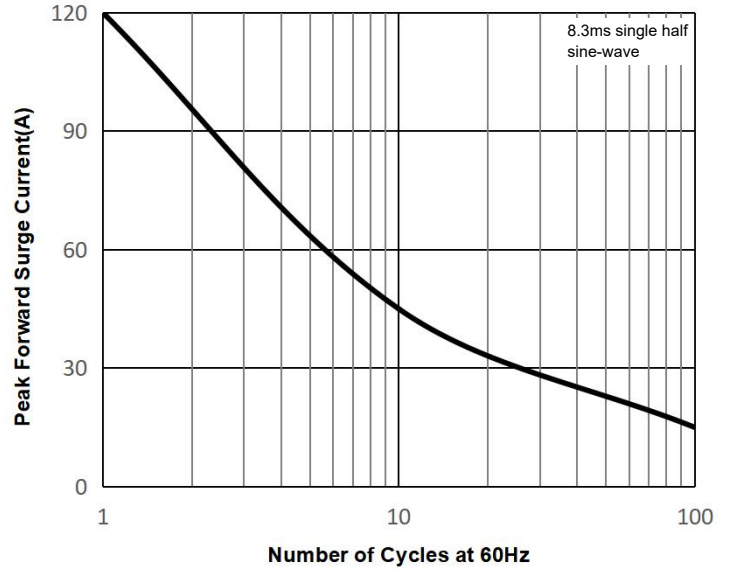
## RATINGS AND CHARACTERISTIC CURVES

$T_A=25^{\circ}\text{C}$  unless otherwise noted

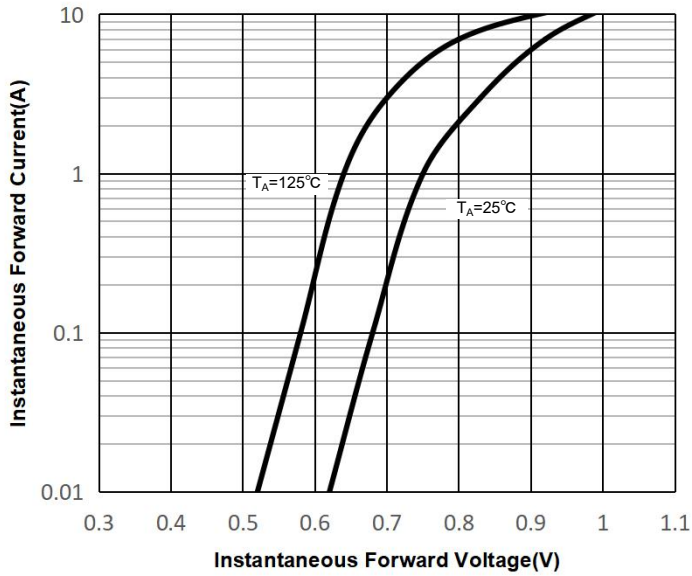
**FIG.1: Forward Output Current Derating Curve**



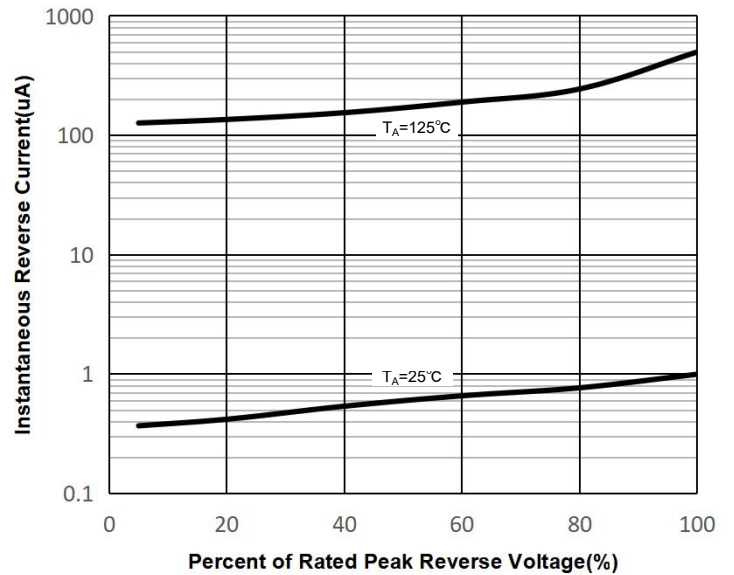
**FIG.2: Maximum Non-Repetitive Peak Forward Surge Current**



**FIG.3: Typical Forward Characteristics**

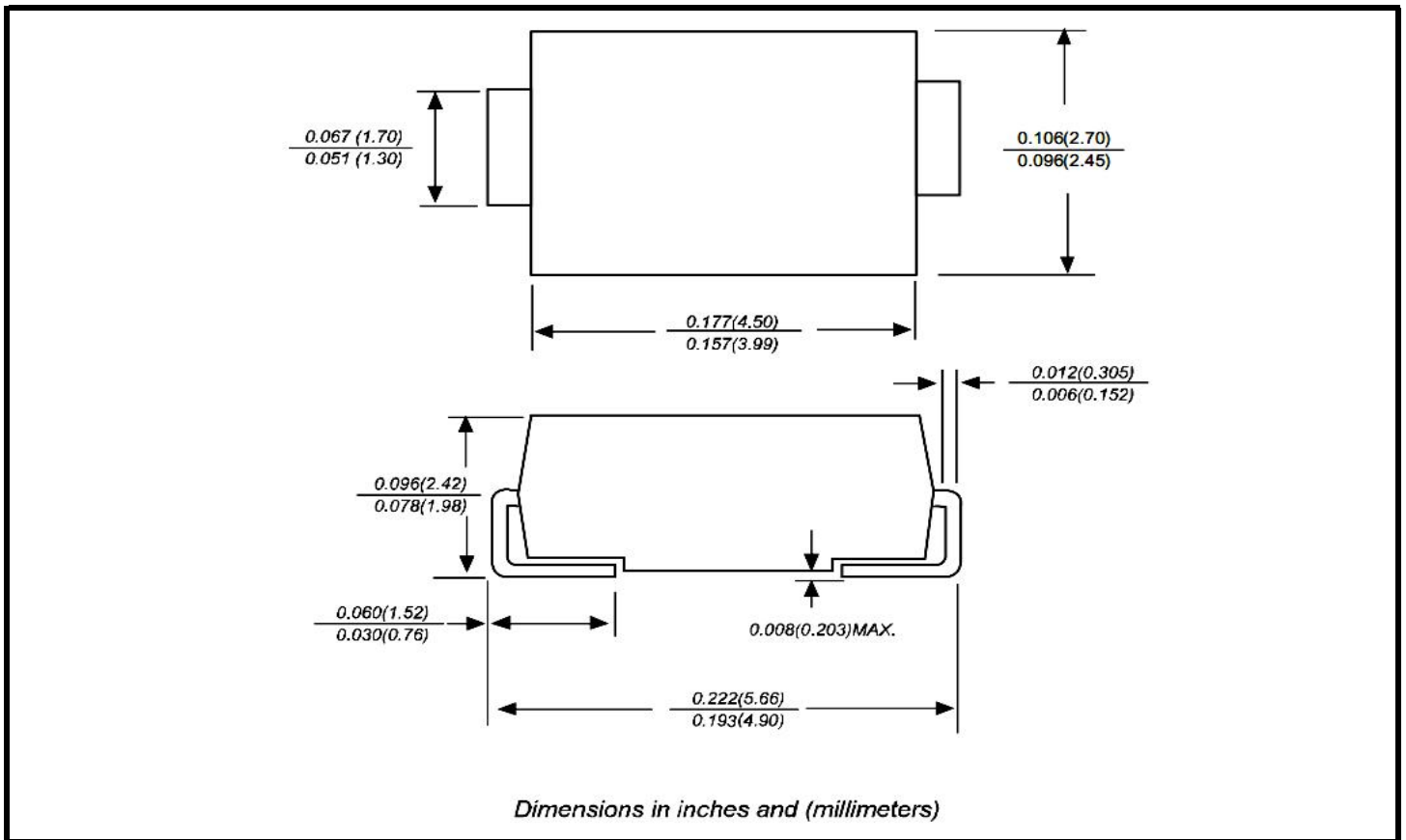


**FIG.4: Typical Reverse Characteristics**



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## PACKAGE OUTLINE DIMENSIONS



## PACKING INFORMATION

| Package | Reel(PCS) | Inner Box(PCS) | Carton(PCS) |
|---------|-----------|----------------|-------------|
| SMA     | 5,000     | 10,000         | 80,000      |