

3A, 100V Low Forward Voltage Schottky Rectifier

FEATURES

- Trench MOS barrier schottky diode
- 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

SMAF



**RoHS
COMPLIANT**

**HALOGEN
FREE**

MECHANICAL DATA

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

TYPICAL APPLICATION

It's designed to meet the general requirements of commercial applications such as polarity protection diode, SMPS, adapter, charger, home appliances and lighting.

MAXIMUM RATINGS

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	100	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}	80	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	0.56	0.6	V
	$T_A=125^{\circ}\text{C}$		0.5	0.54	
Reverse Current @ V_{RRM}	$T_A=25^{\circ}\text{C}$	I_R	15	50	μA
	$T_A=125^{\circ}\text{C}$		10	35	mA
Typical Thermal Resistance		$R_{\theta JA}$	85		$^{\circ}\text{C}/\text{W}$

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RATINGS AND CHARACTERISTIC CURVES

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

FIG.1: Forward Output Current Derating Curve

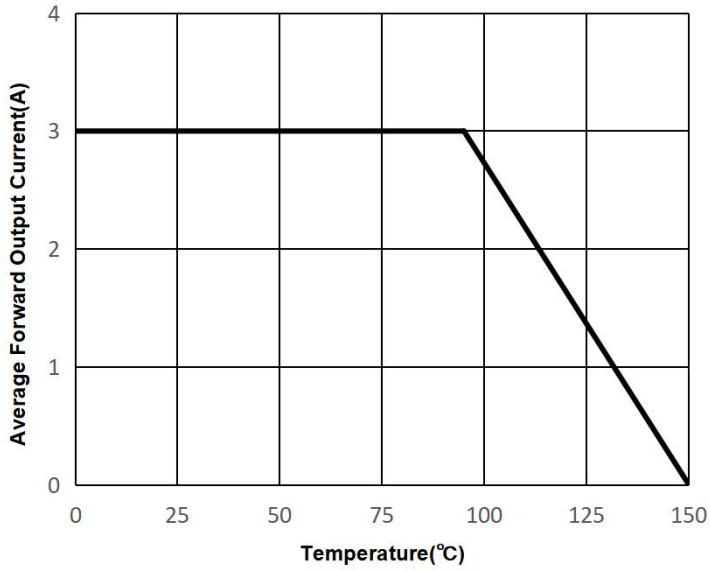


FIG.2: Maximum Non-Repetitive Peak Forward Surge Current

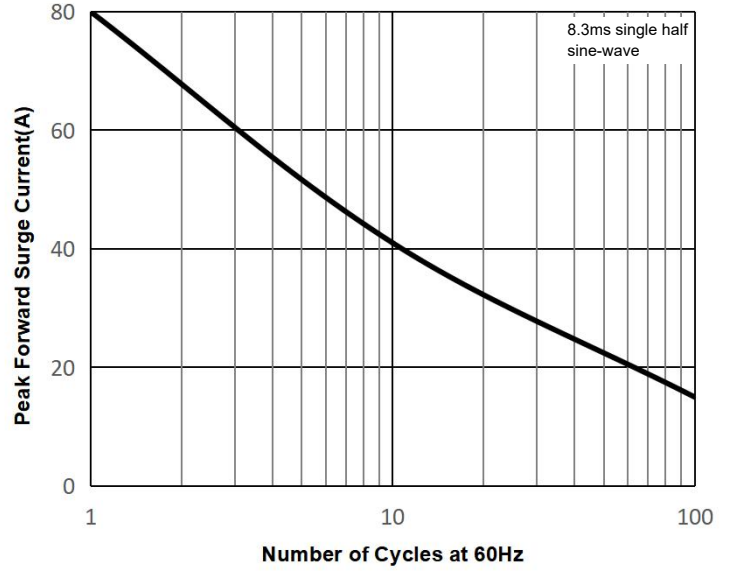


FIG.3: Typical Forward Characteristics

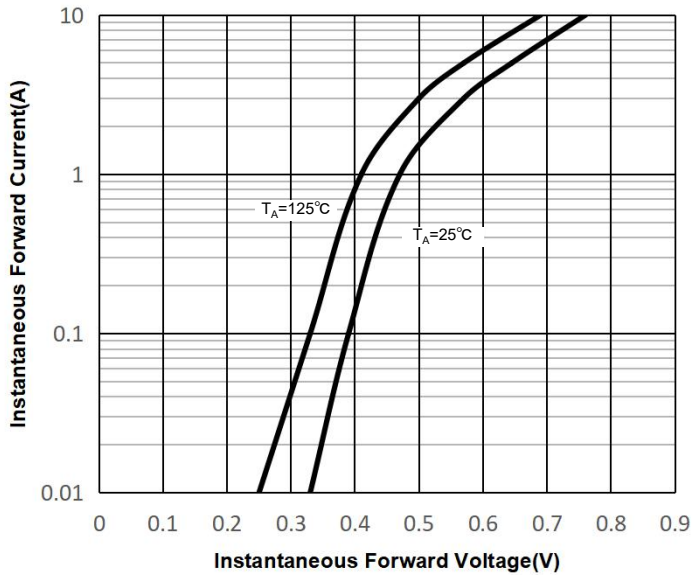
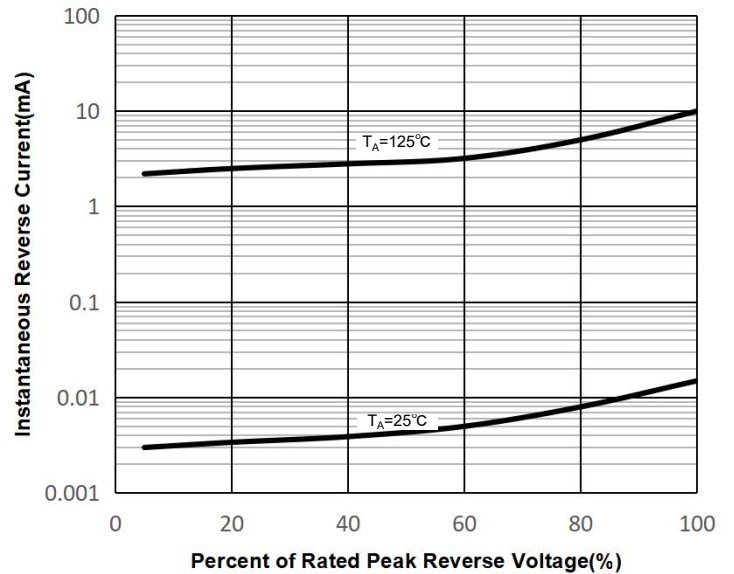
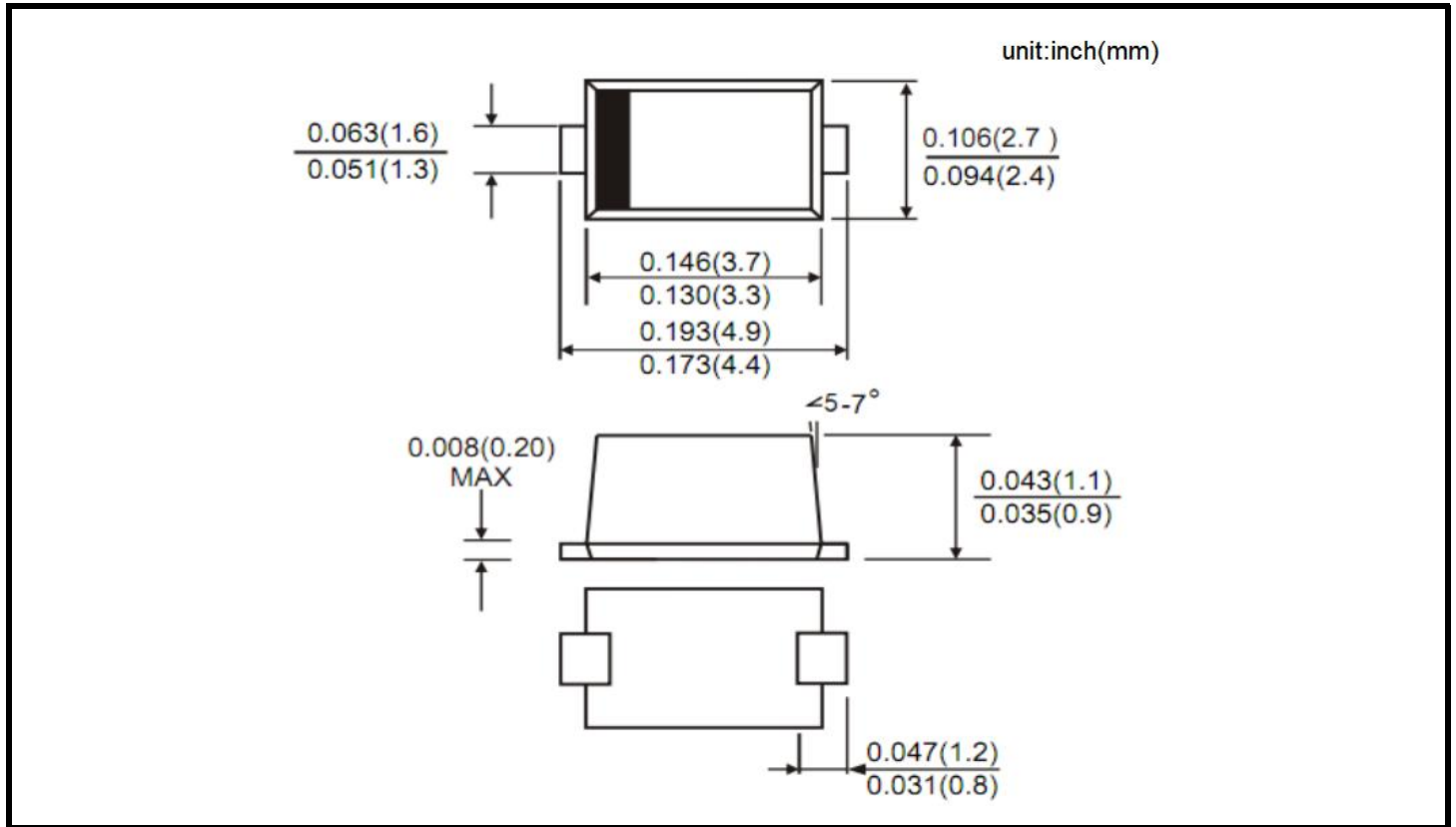


FIG.4: Typical Reverse Characteristics



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PACKAGE OUTLINE DIMENSIONS



PACKING INFORMATION

Package	Reel(PCS)	Inner Box(PCS)	Carton(PCS)
SMAF	3,000	15,000	60,000