ANSAS

ST3100S

3A, 100V Low Forward Voltage Schottky Rectifier

FEATURES

- Trench MOS schottky barrier diode
- Low forward voltage drop
- Low profile - max body height 0.9 mm
- Moisture sensitivity: level 1, per J-STD-020
- High temperature soldering guaranteed: 260℃/10 seconds
- RoHS compliant
- Halogen-free according to IEC 61249-2-21 definition

SOD-123HS

RoHS COMPLIANT

HALOGEN FREE

MECHANICAL DATA

- Case: SOD-123HS
- Case material: molding compound meets UL 94V-0 flammability rating
- Polarity: color band denotes cathode end

TYPICAL APPLICATION

For use of fast swiching in RF module, lighting, cellular phone, portable device, power supplies and other consumer applications.

MAXIMUM RATINGS

T_A=25℃ 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 supe rimposed on rated load)	I_{FSM}	80	A
Operating Junction Temperature Range	T_J	-55 to +150	℃
Storage Temperature Range	T_{STG}	-55 to +150	℃

ELECTRICAL CHARACTERISTICS

T_A=25℃ unless otherwise noted

Parameter	Test Conditions	Symbol	Value		Unit
			Typ.	Max.	
Forward Voltage@I_F=3A	T_A=25℃	V_F	0.56	0.6	V
	T_A=125℃		0.48	0.51	
Reverse Current @V_{RRM}	T_A=25℃	I_R	10	50	uA
	T_A=125℃		5	35	mA
Typical Thermal Resistance		$R_{\theta JA}$	250		℃/W

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RATINGS AND CHARACTERISTIC CURVES

T_A=25℃ unless otherwise noted

FIG.1: Forward Output Current Derating Curve

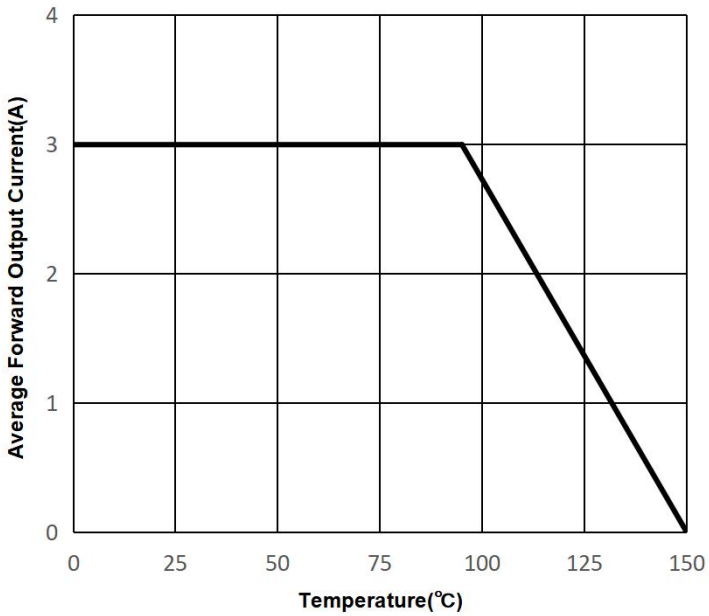


FIG.2: Maximum Non-Repetitive Peak Forward Surge Current

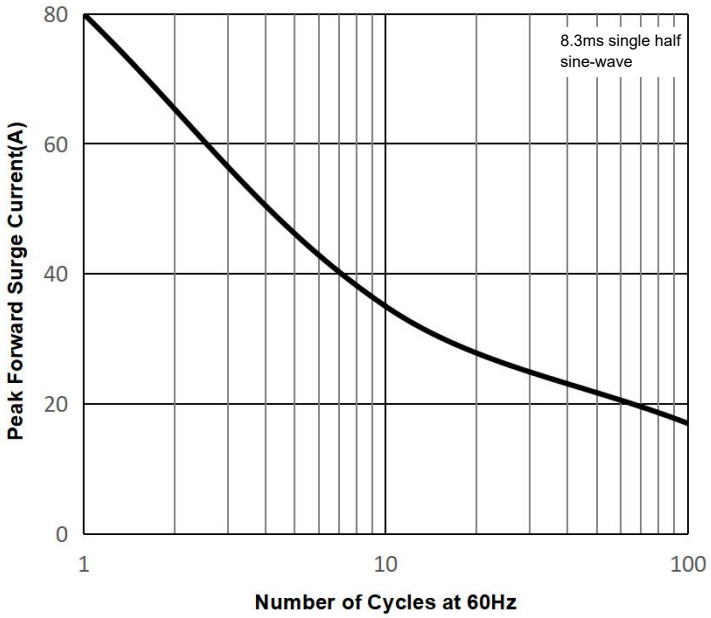


FIG.3: Typical Forward Characteristics

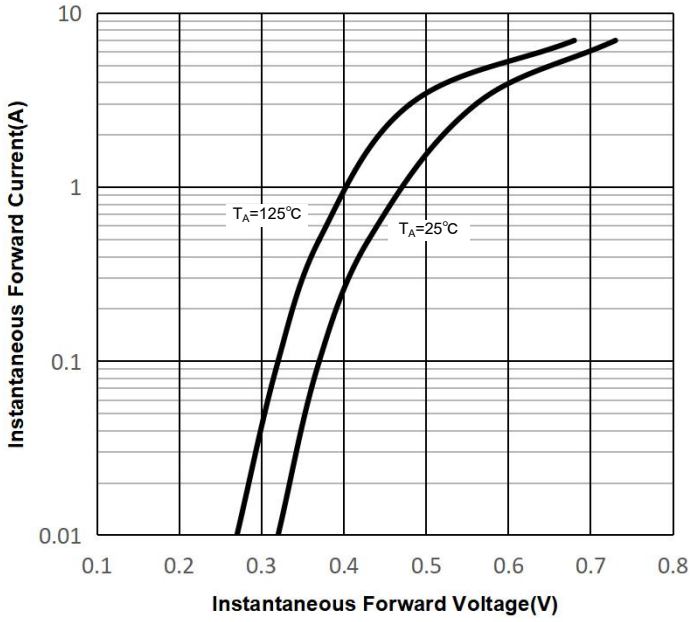
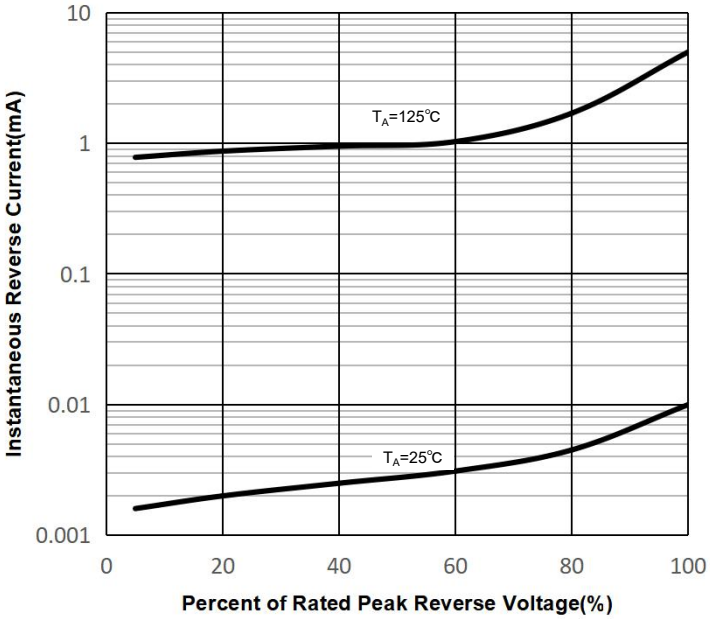


FIG.4: Typical Reverse Characteristics



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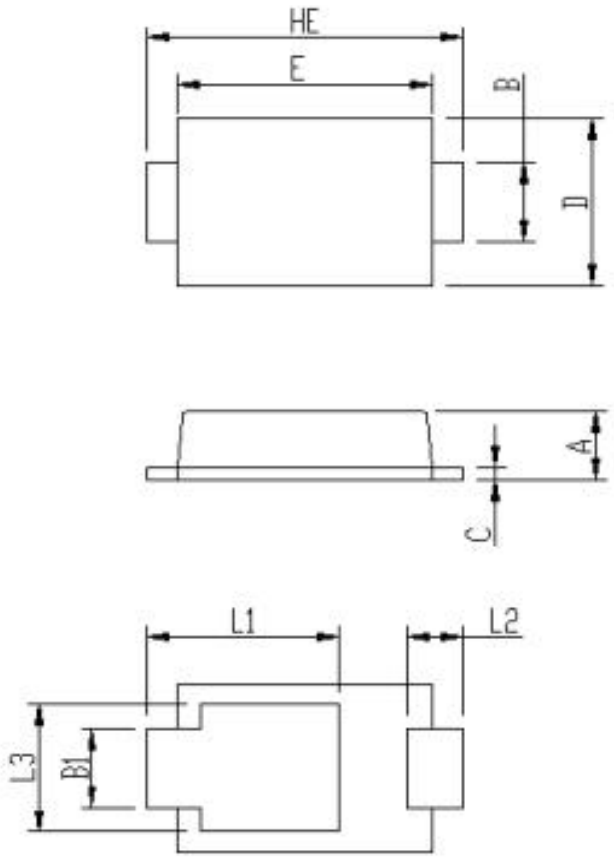
PACKAGE OUTLINE DIMENSIONS



Package	SOD-123HS	
Unit:mm	MIN	MAX
A	0.75	0.90
B	0.85	1.05
B1	0.85	1.05
C	0.1	0.25
D	1.9	2.1
E	2.9	3.1
L1	2.0	2.45
L2	0.4	0.85
L3	1.3	1.7
HE	3.5	3.9

PACKING INFORMATION

Package	Reel(PCS)	Inner Box(PCS)	Carton(PCS)
SOD-123HS	3,000	30,000	120,000