

# 2A, 40V Low Forward Voltage Schottky Rectifier

## FEATURES

- Planar MOS controlled 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°C/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 switching in RF module, lighting, cellular phone, portable device, power supplies and other consumer applications.

## MAXIMUM RATINGS

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	40	V
Average Forward Rectified Current	$I_{F(AV)}$	2	A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	$I_{FSM}$	50	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

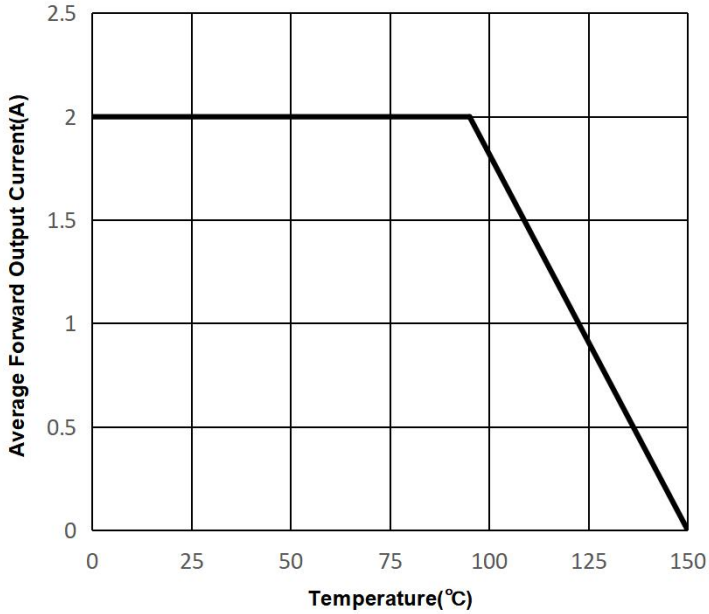
Parameter	Test Conditions	Symbol	Value		Unit
			Typ.	Max.	
Forward Voltage@ $I_F=2\text{A}$	$T_A=25^\circ\text{C}$	$V_F$	0.45	0.48	V
	$T_A=125^\circ\text{C}$		0.38	0.41	
Reverse Current @ $V_{RRM}$	$T_A=25^\circ\text{C}$	$I_R$	15	50	$\mu\text{A}$
	$T_A=125^\circ\text{C}$		5	35	$\text{mA}$
Typical Thermal Resistance		$R_{\theta JA}$	250		$^\circ\text{C}/\text{W}$

# 2A, 40V Low Forward Voltage Schottky Rectifier

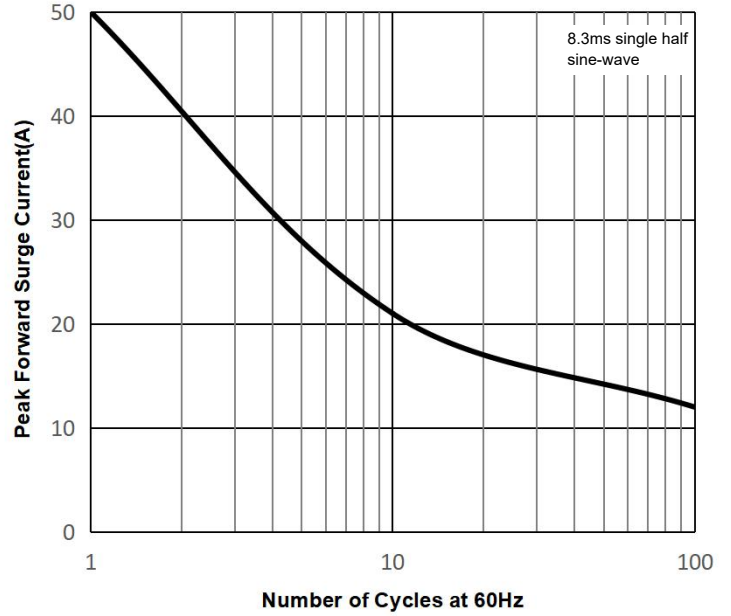
## RATINGS AND CHARACTERISTIC CURVES

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

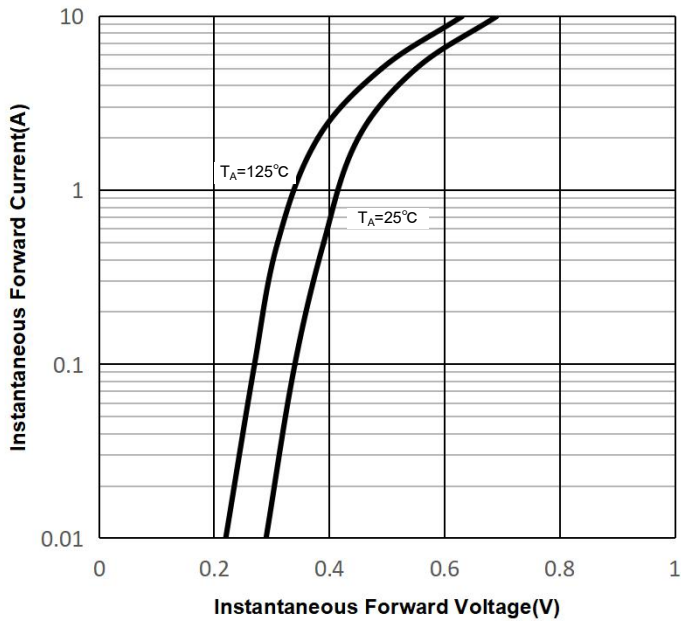
**FIG.1: Forward Output Current Derating Curve**



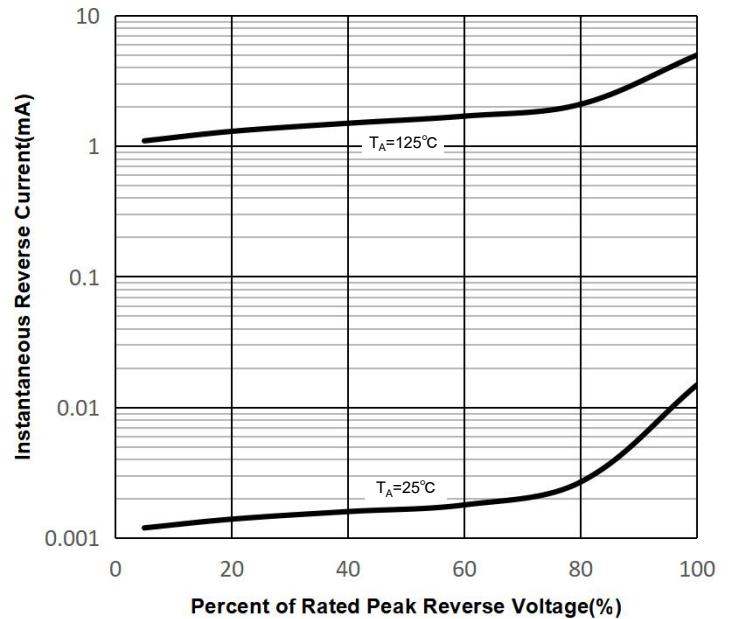
**FIG.2: Maximum Non-Repetitive Peak Forward Surge Current**



**FIG.3: Typical Forward Characteristics**

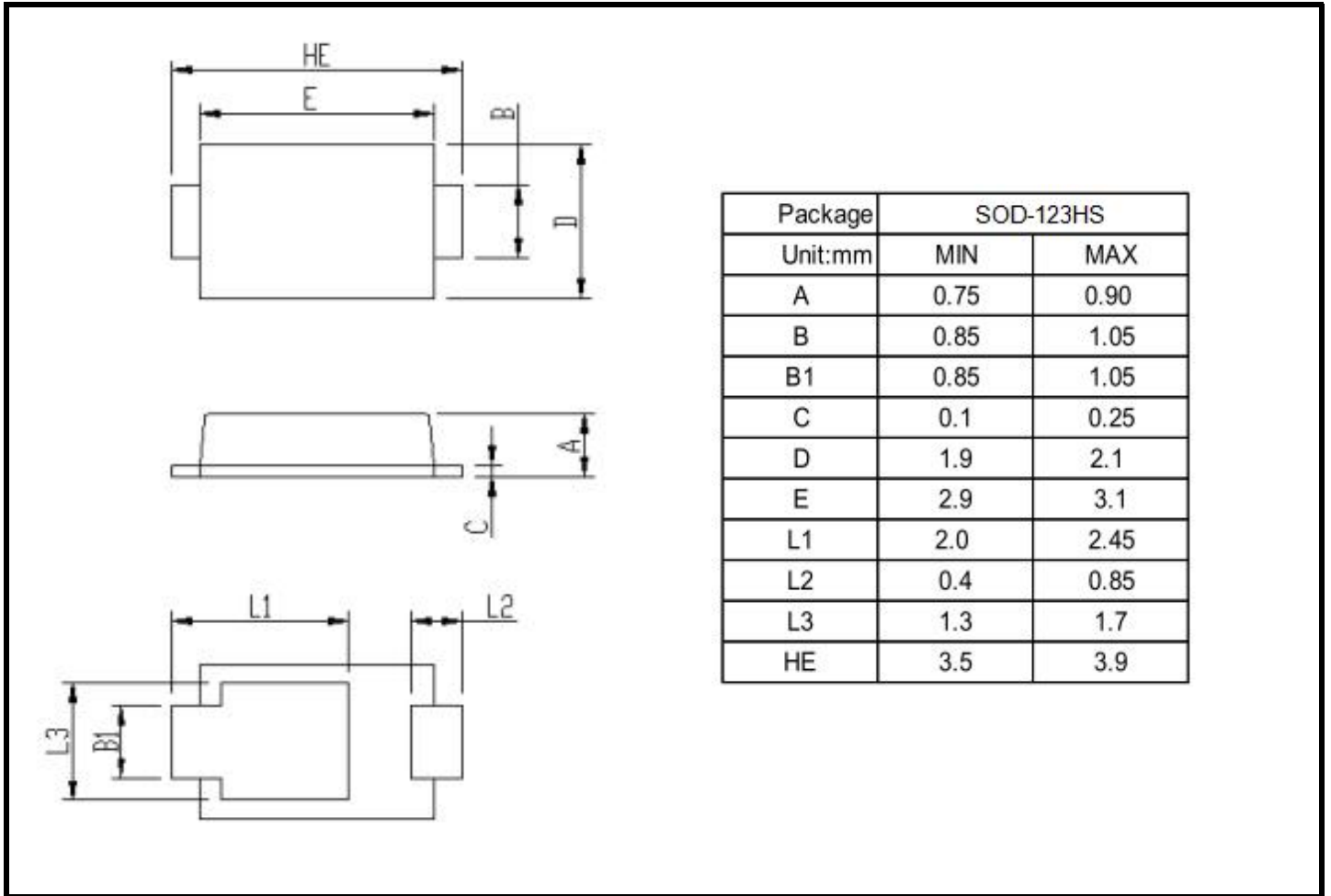


**FIG.4: Typical Reverse Characteristics**



**2A, 40V Low Forward Voltage Schottky Rectifier**

**PACKAGE OUTLINE DIMENSIONS**



**PACKING INFORMATION**

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