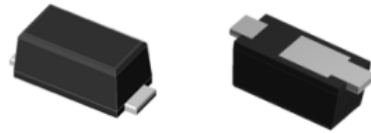


## 1.5A, 50V to 1000V General Purpose Rectifiers

### FEATURES

- Glass passivated rectifiers
- Low forward voltage drop
- Low leakage current
- 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

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

### MAXIMUM RATINGS

T<sub>A</sub>=25°C unless otherwise noted

Parameter	Symbol	Value							Unit
		S1A 5S	S1B 5S	S1D 5S	S1G 5S	S1J 5S	S1K 5S	S1M 5S	
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	
Average Forward Rectified Current	I <sub>F(AV)</sub>	1.5							A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	I <sub>FSM</sub>	55							A
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +150							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150							°C

### ELECTRICAL CHARACTERISTICS

T<sub>A</sub>=25°C unless otherwise noted

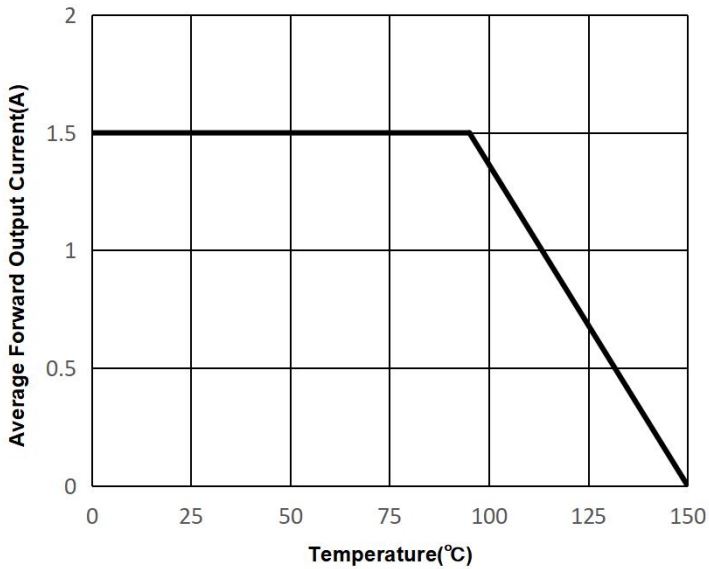
Parameter	Test Conditions	Symbol	Value	Unit
Forward Voltage@I <sub>F</sub> =1.5A	T <sub>A</sub> =25°C	V <sub>F</sub>	1.0	V
	T <sub>A</sub> =125°C		0.88	
Reverse Current @ V <sub>RRM</sub>	T <sub>J</sub> =25°C	I <sub>R</sub>	5	µA
	T <sub>J</sub> =125°C		50	
Typical Thermal Resistance (junction to ambient)		R <sub>θJA</sub>	63	°C/W

## 1.5A, 50V to 1000V General Purpose Rectifiers

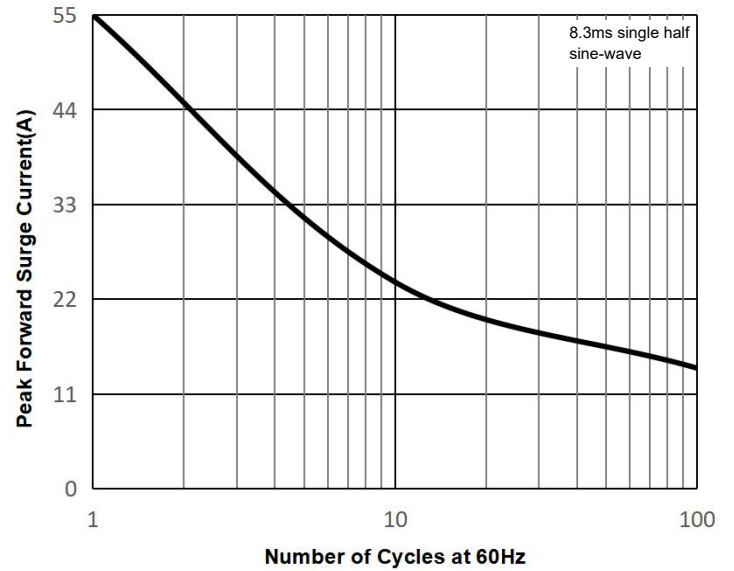
### RATINGS AND CHARACTERISTIC CURVES

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

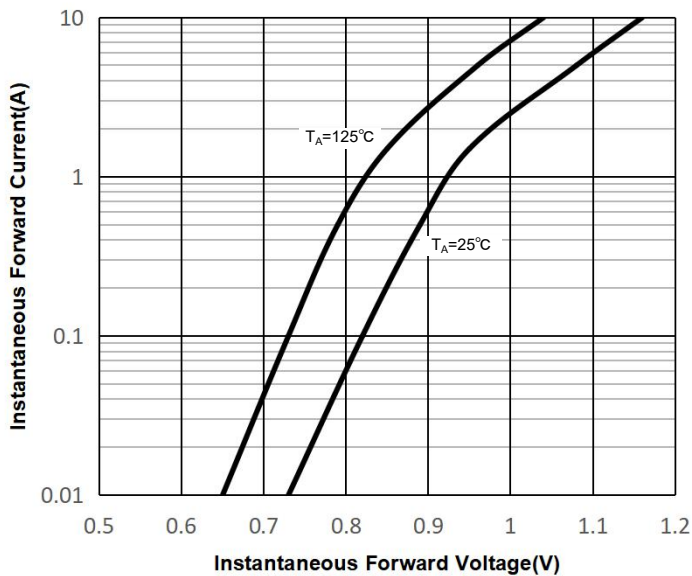
**FIG.1: Forward Output Current Derating Curve**



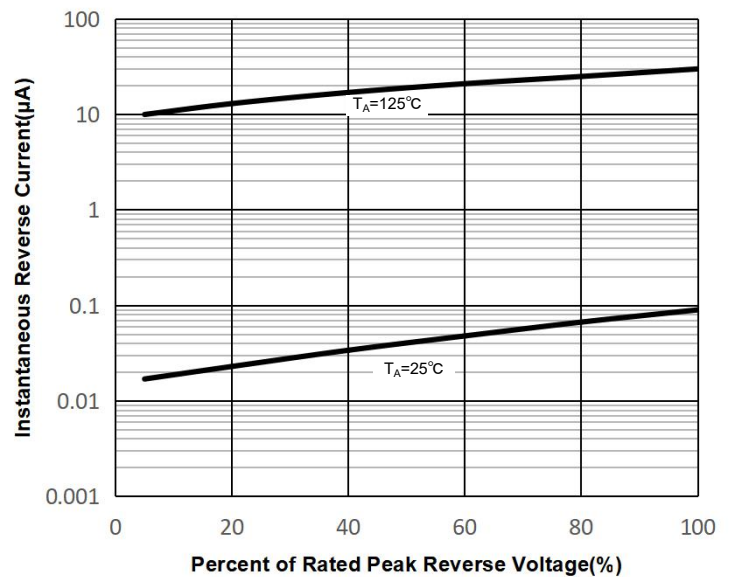
**FIG.2: Maximum Non-Repetitive Peak Forward Surge Current**



**FIG.3: Typical Forward Characteristics**

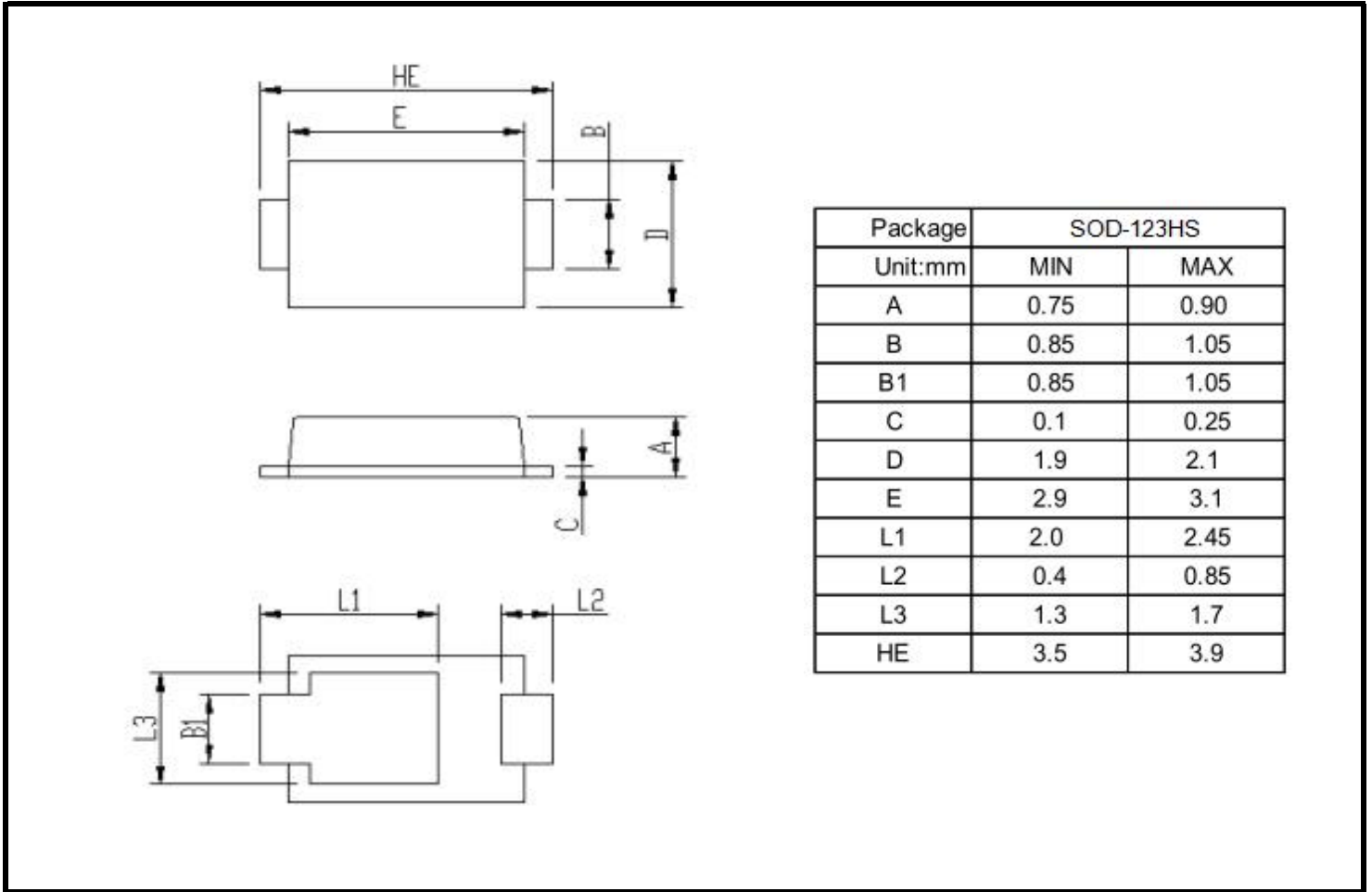


**FIG.4: Typical Reverse Characteristics**



## 1.5A, 50V to 1000V General Purpose Rectifiers

### PACKAGE OUTLINE DIMENSIONS



### PACKING INFORMATION

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