

1A, 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-323HS



RoHS
COMPLIANT

HALOGEN
FREE

MECHANICAL DATA

- Case: SOD-323HS
- 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

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

Parameter	Symbol	Value							Unit
		S1AH	S1BH	S1DH	S1GH	S1JH	S1KH	S1MH	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	
Average Forward Rectified Current	$I_{F(AV)}$	1							A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	I_{FSM}	20							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
Forward Voltage@ $I_F=1\text{A}$	$T_A=25^\circ\text{C}$	V_F	1.1	V
Reverse Current @ V_{RRM}	$T_J=25^\circ\text{C}$	I_R	5	μA
	$T_J=125^\circ\text{C}$		50	
Typical Thermal Resistance (junction to ambient)		$R_{\theta JA}$	84	$^\circ\text{C}/\text{W}$

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RATINGS AND CHARACTERISTIC CURVES

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

FIG.1: Forward Output Current Derating Curve

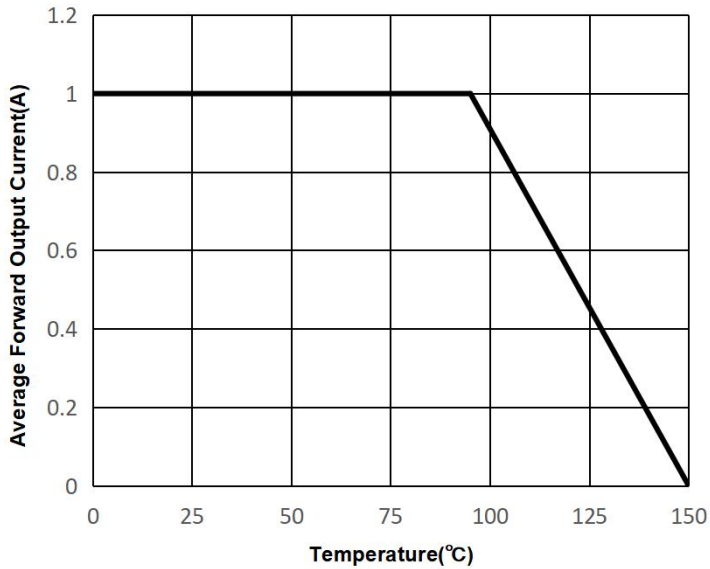


FIG.2: Maximum Non-Repetitive Peak Forward Surge Current

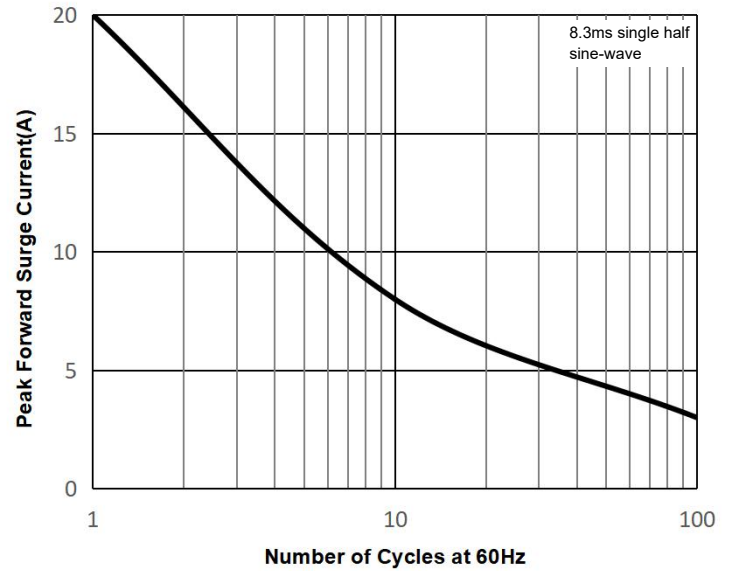


FIG.3: Typical Forward Characteristics

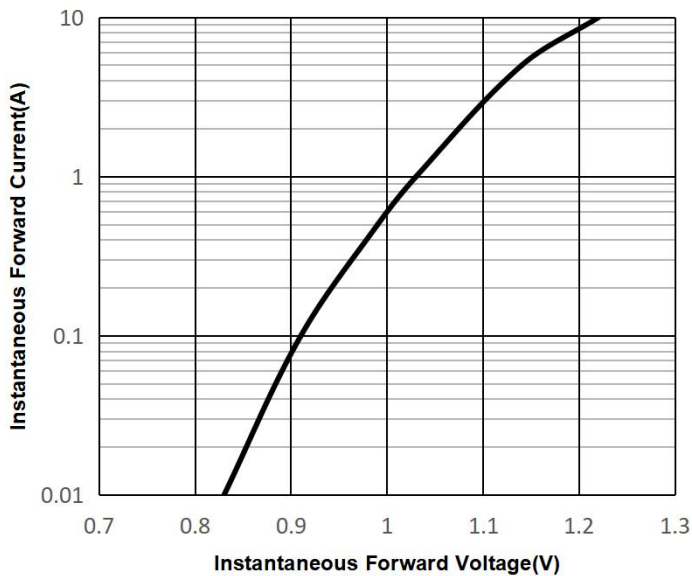
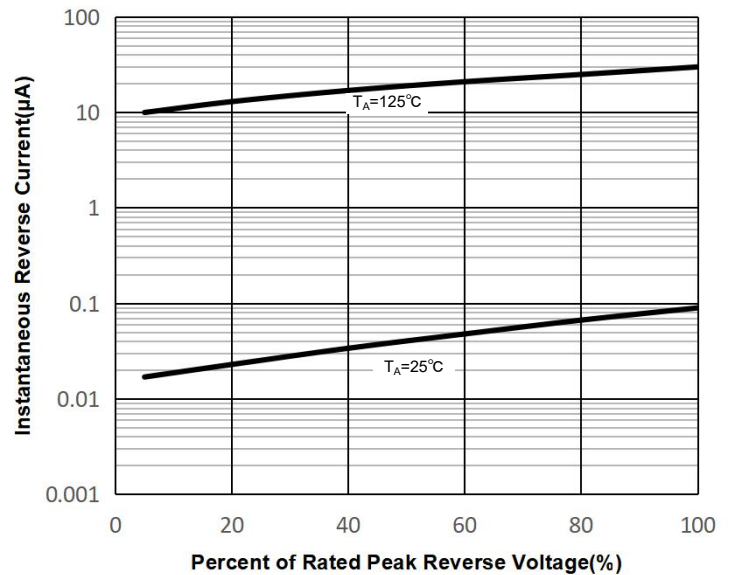
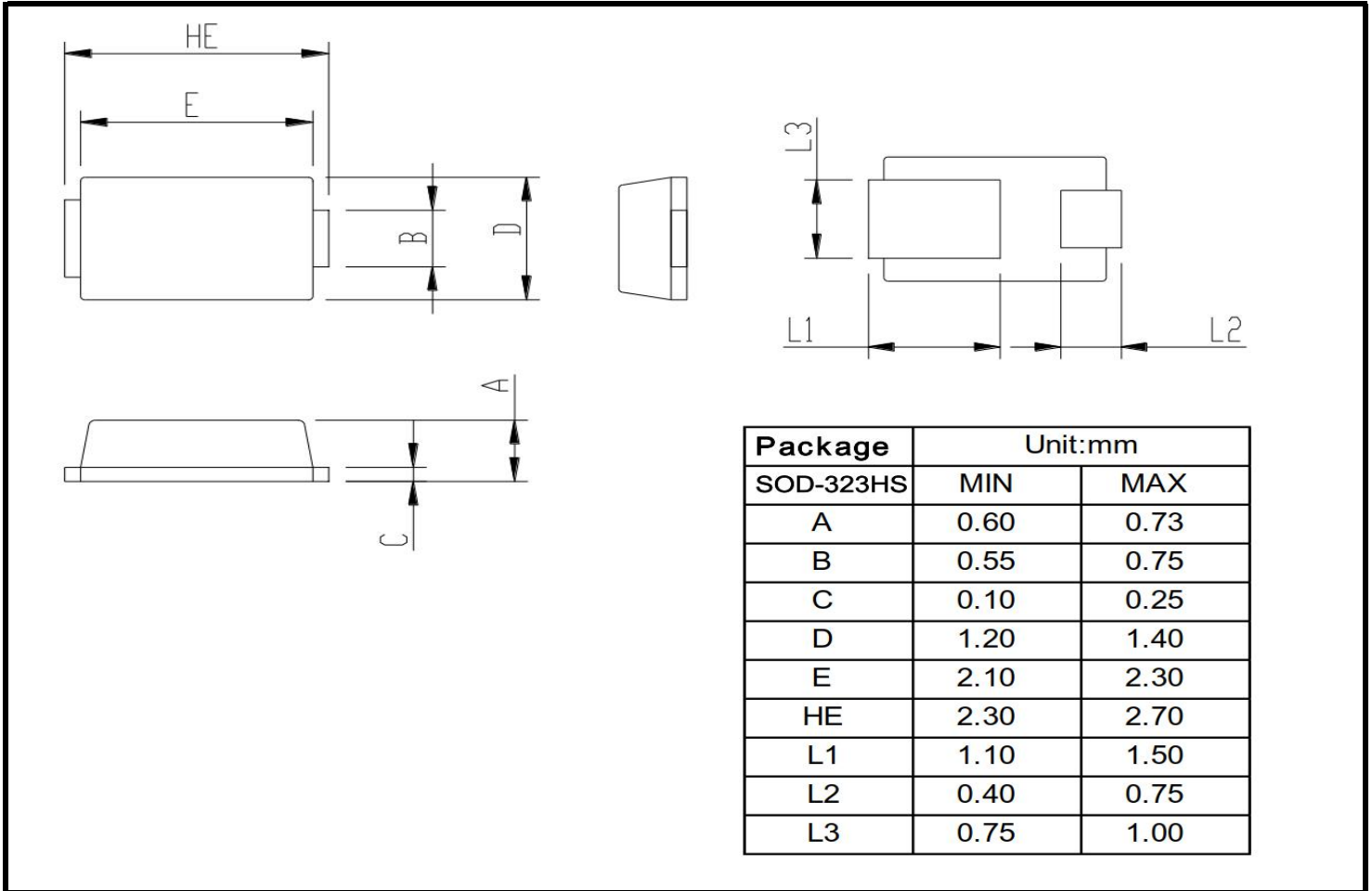


FIG.4: Typical Reverse Characteristics



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PACKAGE OUTLINE DIMENSIONS



PACKING INFORMATION

Package	Reel(PCS)	Inner Box(PCS)	Carton(PCS)
SOD-323HS	4,500	45,000	180,000