

## Surface Mount Glass Passivated Standard Rectifier

Reverse Voltage -50~1000 V

Forward Current - 1.0A

### FEATURES

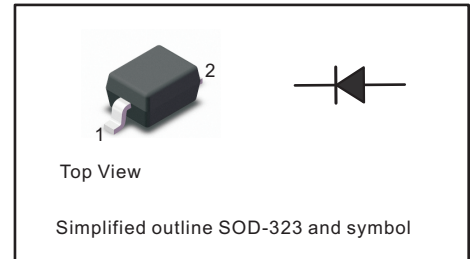
- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place

### MECHANICAL DATA

- Case: SOD-323
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 5.48mg / 0.00019oz

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



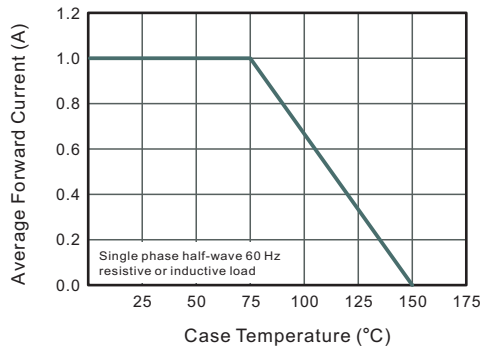
### Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

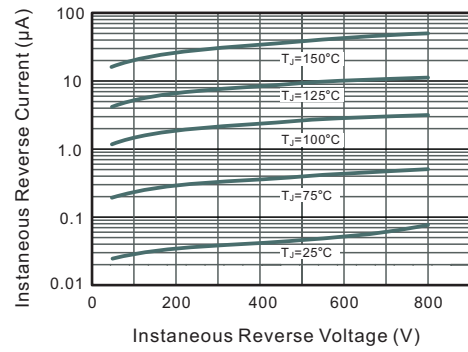
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	SGP1A	SGP2A	SGP3A	SGP4A	SGP5A	SGP6A	SGP7A	Units
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	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	$I_{FSM}$	15							A
Maximum Instantaneous Forward Voltage at 1 A	$V_F$	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a = 25\text{ }^\circ\text{C}$ $T_a = 125\text{ }^\circ\text{C}$	$I_R$	5 50							$\mu\text{A}$
Typical Thermal Resistance <sup>(1)</sup>	$R_{\theta JA}$	55							$^\circ\text{C/W}$
Typical reverse recovery time <sup>(2)</sup>	$t_{rr}$	1.8							$\mu\text{s}$
Typical junction capacitance <sup>(3)</sup>	$C_j$	5							pF
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 ~ +150							$^\circ\text{C}$

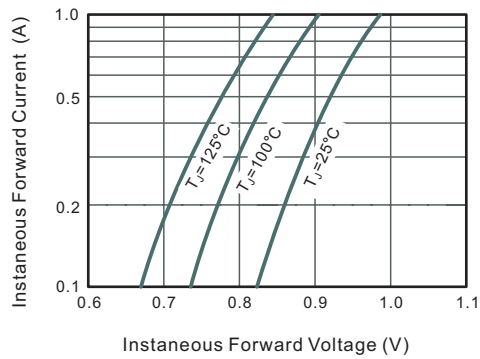
**Fig.1 Forward Current Derating Curve**



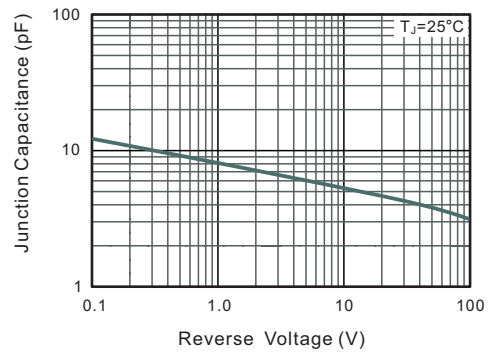
**Fig.2 Typical Instantaneous Reverse Characteristics**



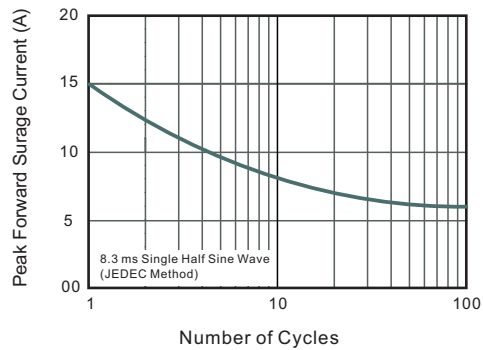
**Fig.3 Typical Forward Characteristic**



**Fig.4 Typical Junction Capacitance**



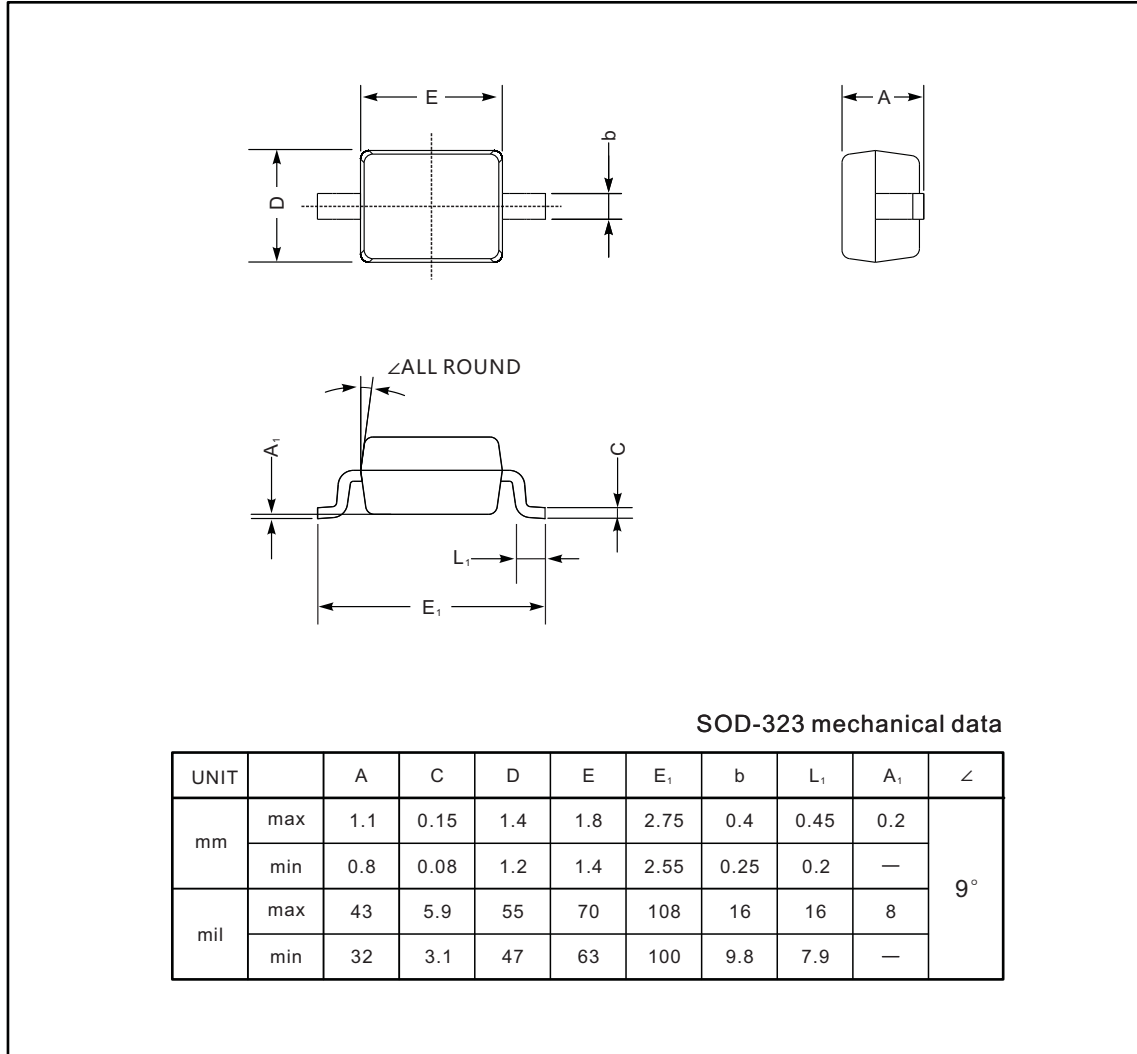
**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



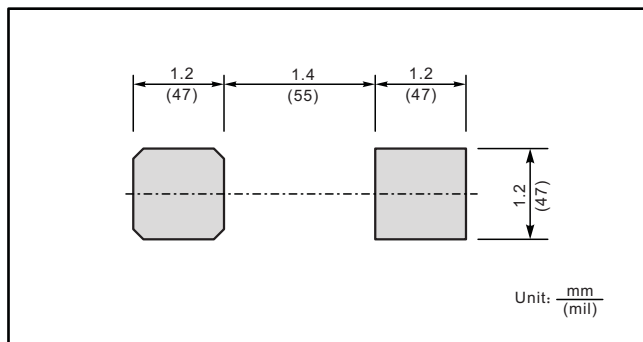
## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



### The recommended mounting pad size



### Marking

Type number	Marking code
SGP1A	1A
SGP2A	2A
SGP3A	3A
SGP4A	4A
SGP5A	5A
SGP6A	6A
SGP7A	7A

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