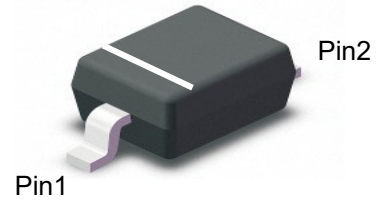


Surface Mount Glass Passivated Standard Rectifier

Feature

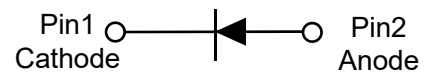
- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Lead free in comply with EU RoHS 2011/65/EU directives



SOD-323(Top View)

Mechanical Characteristics

- Case: SOD-323
- Terminals: Solderable per MIL-STD-750, Method 2026



Circuit Diagram

Maximum Ratings and Thermal Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	PSGP1A	PSGP2A	PSGP3A	PSGP4A	PSGP5A	PSGP6A	PSGP7A	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	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load	I_{FSM}	15							A
Max Instantaneous Forward Voltage at 1 A	V_F	1.1							V
Reverse Current	$T_a = 25^\circ\text{C}$	5.0							μA
	$T_a = 125^\circ\text{C}$	50							
Typical Junction Capacitance @ $V_R=4\text{V}, f=1\text{MHz}$	C_J	5.0							pF
Maximum Reverse Recovery Time ²⁾	t_{rr}	1.8							μs
Typical Thermal Resistance ¹⁾	$R_{\theta JA}$	55							$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 ~ +150							$^\circ\text{C}$

Notes:

1. P.C.B. mounted with 0.2" X 0.2" (5 X 5 mm) copper pad areas.
2. Measured with $I_F=0.5\text{A}, I_R=1\text{A}, I_{rr}=0.25\text{A}$

Typical Characteristics

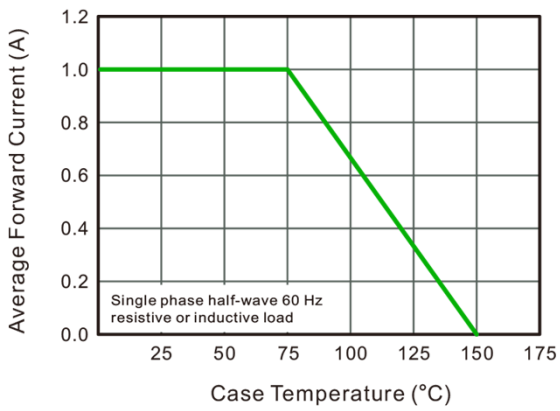


Fig.1 Forward Current Derating Curve

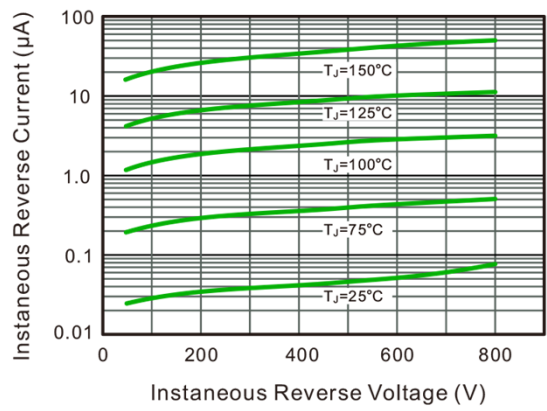


Fig.2 Typical Instantaneous Reverse Characteristics

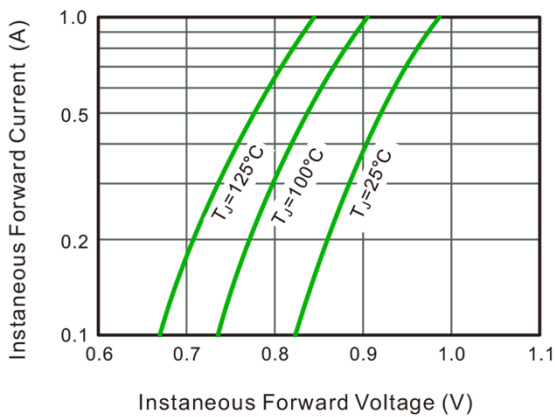


Fig.3 Typical Forward Characteristic

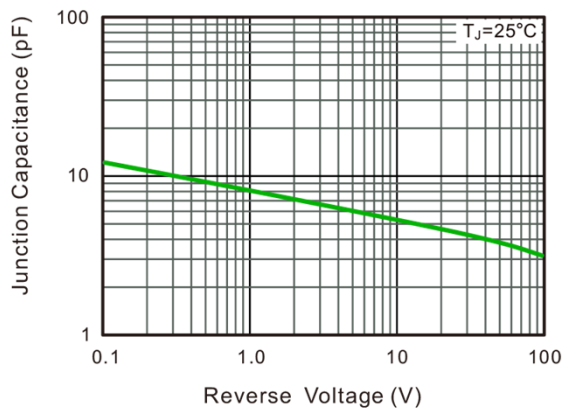


Fig.4 Typical Junction Capacitance

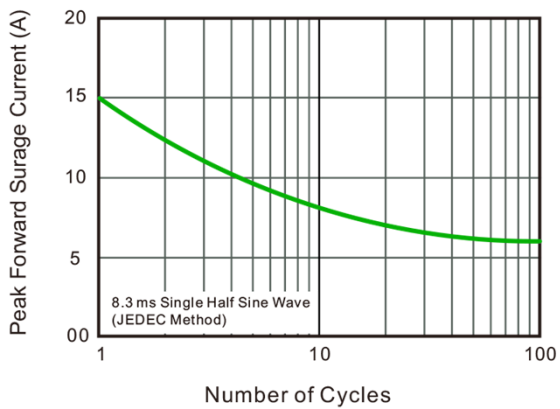
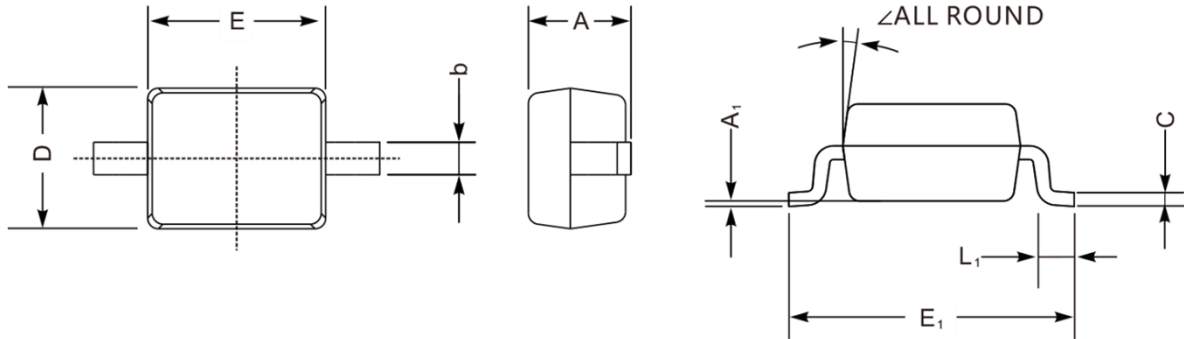


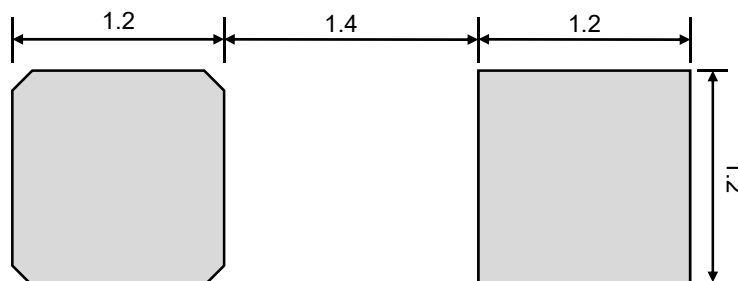
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

Surface Mount Glass Passivated Standard Rectifier PSGPxA Series

Product dimension (SOD-323)



Dim	Millimeters		Inches	
	Min	Max	Min	Max
A	0.80	1.10	0.031	0.043
A1	-	0.20	-	0.008
C	0.08	0.15	0.003	0.006
D	1.20	1.40	0.047	0.055
E	1.40	1.80	0.055	0.071
E1	2.55	2.75	0.100	0.108
b	0.25	0.40	0.010	0.016
L1	0.20	0.45	0.008	0.018
∠	9°		9°	



Suggested PCB Layout

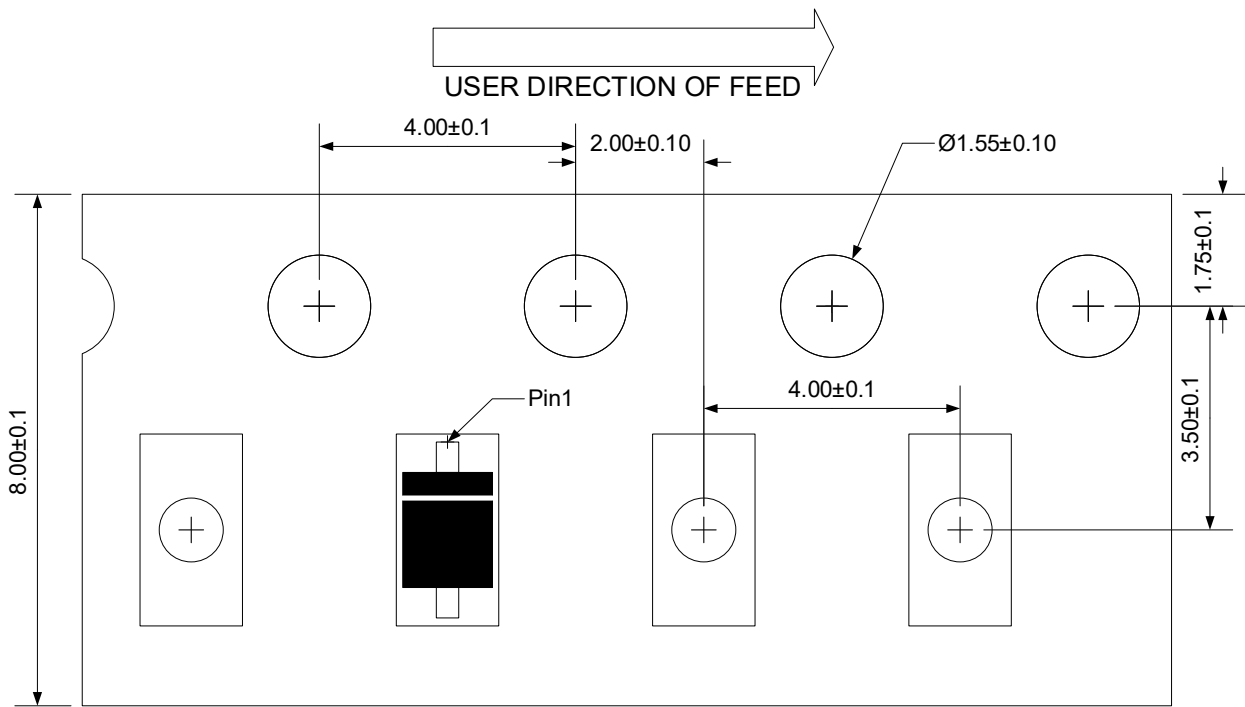
Unit: mm

Surface Mount Glass Passivated Standard Rectifier PSGPxA Series

Ordering Information

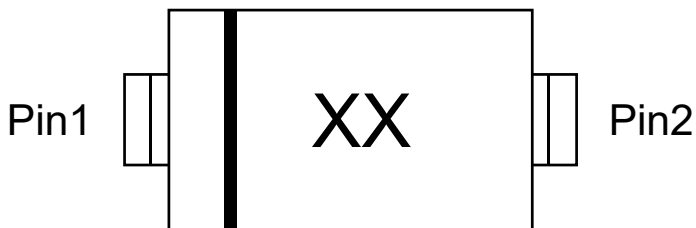
Device	Package	Reel	Shipping
PSGPxA Series	SOD-323	7"	3000 / Tape & Reel

Load With Information



Unit:mm


Marking Information



Note: Detailed Marking See table right

Type number	Marking code
PSGP1A	1A
PSGP2A	2A
PSGP3A	3A
PSGP4A	4A
PSGP5A	5A
PSGP6A	6A
PSGP7A	7A


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