



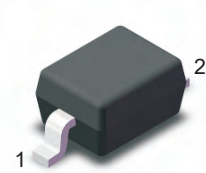
# SGP1AWS~SGP7AWS

## Surface Mount General Purpose Silicon Rectifiers

### Features

- For surface mount applications
- Glass Passivated Chip Junction
- Low profile package

### SOD-323



1.Cathode  2.Anode

### Marking Code:

SGP1AWS: 1A  
SGP2AWS: 2A  
SGP3AWS: 3A  
SGP4AWS: 4A  
SGP5AWS: 5A  
SGP6AWS: 6A  
SGP7AWS: 7A

### 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	SGP1AWS	SGP2AWS	SGP3AWS	SGP4AWS	SGP5AWS	SGP6AWS	SGP7AWS	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
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 Junction Capacitance <sup>Note1</sup>	$C_j$	5							pF
Typical Thermal Resistance <sup>Note2</sup>	$R_{\theta JA}$	55							$^\circ\text{C/W}$
Maximum Reverse Recovery Time <sup>Note3</sup>	$T_{rr}$	1.8							$\mu\text{S}$
Junction Temperature	$T_J$	150							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^\circ\text{C}$

### Note:

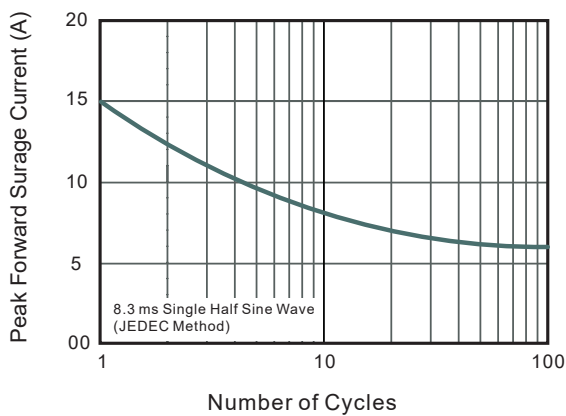
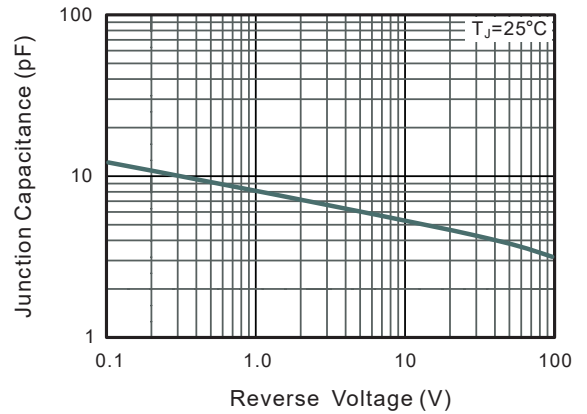
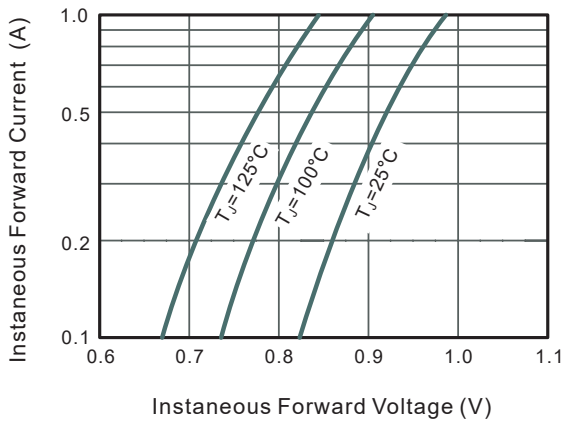
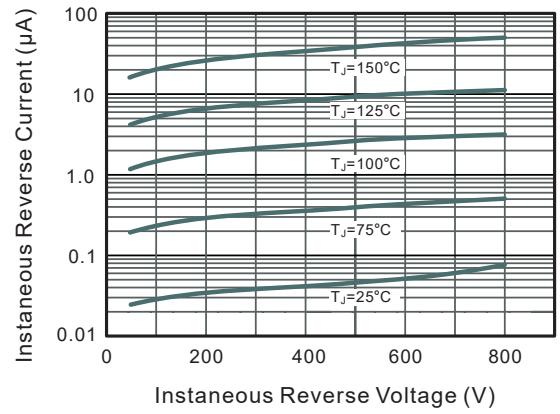
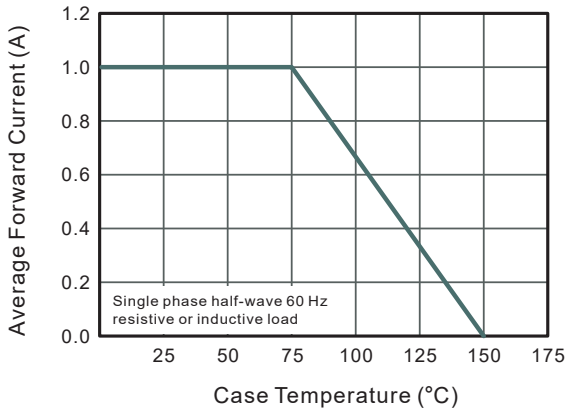
1. Measured at 1 MHz and applied reverse voltage of 4 V D.C
2. P.C.B. mounted with 0.2" X 0.2" (5 X 5 mm) copper pad areas.
3. Measured with  $I_F = 0.5\text{ A}$ ,  $I_R = 1\text{ A}$ ,  $I_{rr} = 0.25\text{ A}$



# SGP1AWS~SGP7AWS

## Surface Mount General Purpose Silicon Rectifiers

### Typical Characteristic Curves





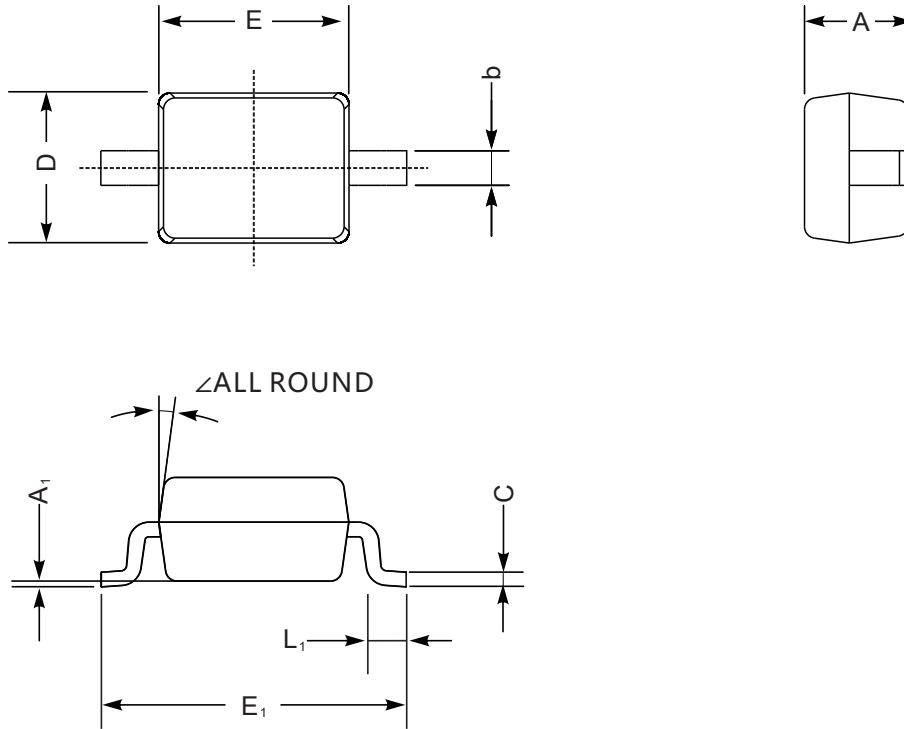
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### Package Outline

SOD-323

Dimensions in mm



UNIT		A	C	D	E	E <sub>1</sub>	b	L <sub>1</sub>	A <sub>1</sub>	∠
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2	9°
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—	
mil	max	43	5.9	55	70	108	16	16	8	
	min	32	3.1	47	63	100	9.8	7.9	—	