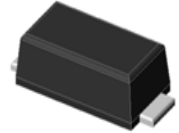


SGP1R thru SGP7R

Surface Mount Glass Passivated Fast Recovery Rectifier
 Reverse Voltage 50-1000V Forward Current 1A

Features

- Low forward voltage drop
- Low leakage current
- Glass passivated Fast Recovery rectifiers
- Low profile - typical height of 1.0 mm
- Moisture sensitivity: level 1, per J-STD-020
- High temperature soldering guaranteed: 260°C/10 seconds
- Halogen-free according to IEC 61249-2-21 definition



Package: eSGP
(SOD-323F)

Maximum Ratings (T_A = 25°C unless otherwise noted)

Parameter	Symbol	SGP 1R	SGP 2R	SGP 3R	SGP 4R	SGP 5R	SGP 6R	SGP 7R	Unit
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 Sin-wave Superimposed on Rated Load	I _{FSM}	25							A
Operating Junction and Storage Temperature Range	T _J , T _{STG}	- 55 to + 150							°C

Electrical Characteristics (T_A = 25 °C unless otherwise noted)

Parameter	Test Conditions	Symbol	SGP 1R	SGP 2R	SGP 3R	SGP 4R	SGP 5R	SGP 6R	SGP 7R	Unit
Maximum Instantaneous Forward Voltage	1 A	V _F	1.3							Volts
Maximum DC Reverse Current	T _A =25°C T _A =125°C	I _R	5 250							µA
Typical Reverse Recovery Time	I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	t _{rr}	150				250	500		nS
Typical Junction Capacitance	4.0 V, 1 MHz	C _J	5							pF
Typical thermal Resistance ¹⁾	junction to mount	R _{θJM}	60							°C/W

Note:1) The thermal resistance from junction to mount, mounted on P.C.B with 5x5mm copper pads, 2 OZ, FR4 PCB

Ratings and Characteristics Curves

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

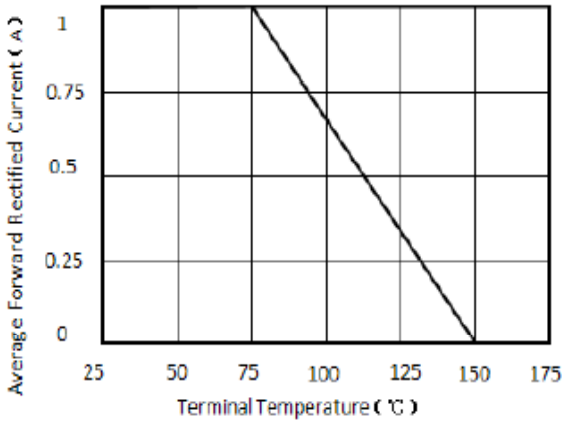


Figure 1. Forward Current Derating Curve

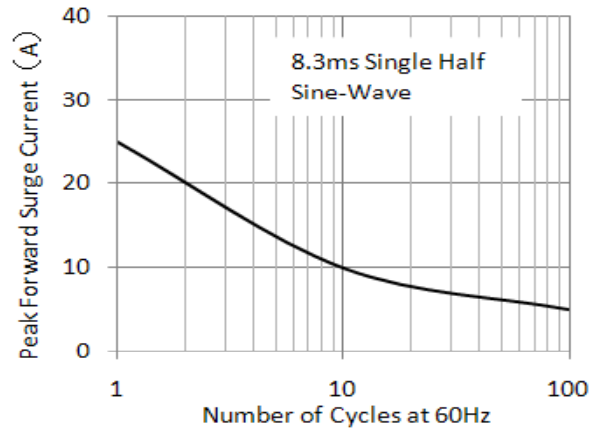


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

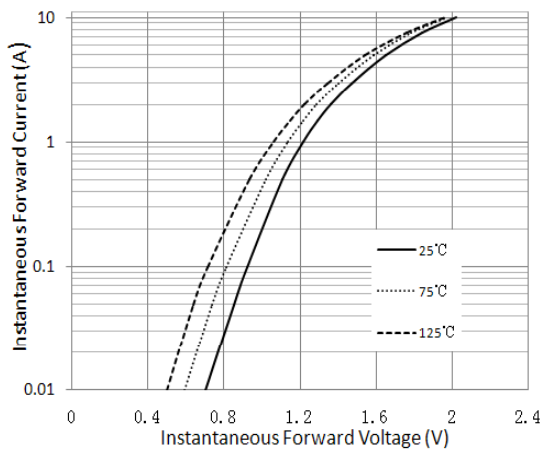


Figure 3. Typical Instantaneous Forward Characteristics

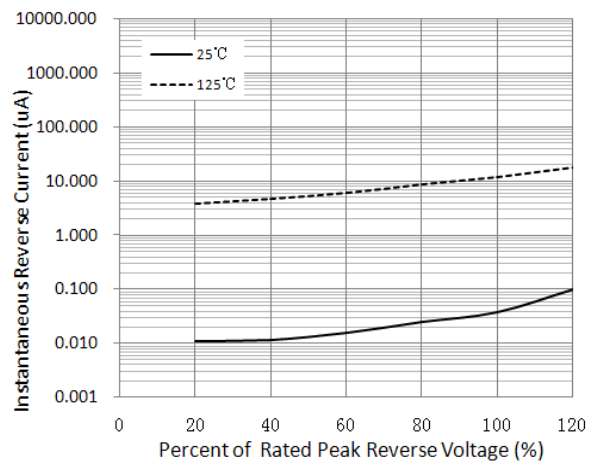


Figure 4. Typical Reverse Characteristics

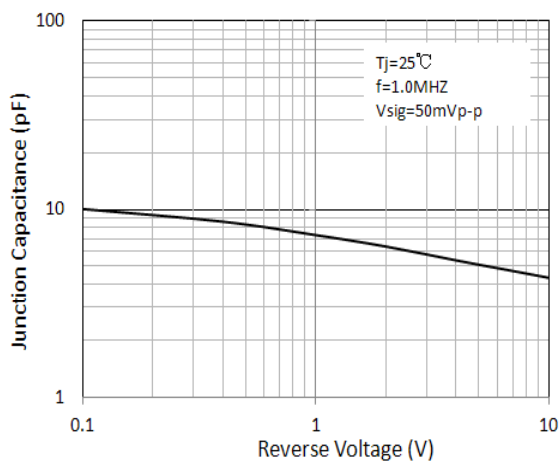


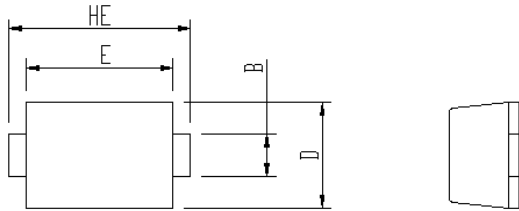
Figure 5. Typical Junction Capacitance

SGP1R thru SGP7R

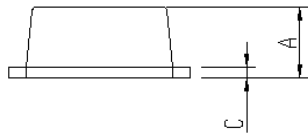
Surface Mount Glass Passivated Fast Recovery Rectifier
Reverse Voltage 50-1000V Forward Current 1A

Package Outline Dimensions

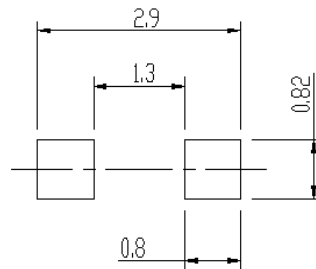
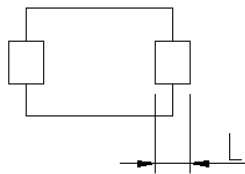
eSGP(SOD-323F)



Package	Unit:mm		Unit:inch	
	MIN	MAX	MIN	MAX
eSGP				
A	0.9	1.08	0.035	0.043
B	0.5	0.7	0.020	0.028
C	0.1	0.25	0.004	0.010
D	1.4	1.6	0.055	0.063
E	2.0	2.2	0.079	0.087
L	0.35	0.65	0.014	0.026
HE	2.4	2.8	0.094	0.110



Soldering footprint



Packing Information

Packing quantities:

3000 pcs/Reel, 40 Reels/Box; 8mm Tape, 7" Reel

Tape & Reel Specification

