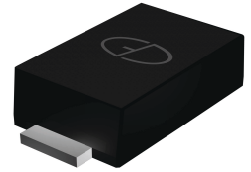


GSGP1A thru GSGP7A

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

Features

- Low forward voltage drop
- Low leakage current
- Glass passivated Standard Rectifier
- 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)



RoHS
COMPLIANT

Typical Applications

For use of general purpose rectification in lighting, cellular phones, portable devices, power supplies and other consumer applications.

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

Parameter	Symbol	GSGP1A	GSGP2A	GSGP3A	GSGP4A	GSGP5A	GSGP6A	GSGP7A	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 at TL (See Fig.1)	I _{F(AV)}	1.0							A
Peak Forward Surge Current (8.3 ms single half sine-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 specified)

Parameter	Test Conditions	Symbol	SGP1A	SGP2A	SGP3A	SGP4A	SGP5A	SGP6A	SGP7A	Unit
Maximum Instantaneous Forward Voltage	1 A	V _F	1.1							V
Maximum DC Reverse Current at rated DC Blocking Voltage	T _A =25°C	I _R	5							μA
	T _A =125°C		50							
Typical Reverse Recovery Time	I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	t _{rr}	1.8							μs
Typical Junction Capacitance	4.0 V, 1 MHz	C _J	5							pF
Typical Thermal Resistance ¹⁾	Juntion to Mount	R _{θJM}	55							°C/W

Note:1)The thermal resistance from junction to ambient,case or mount,mounted on P.C.B with 5×5mm copper pads,2 OZ,FR4 PC

Ratings and Characteristics Curves

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

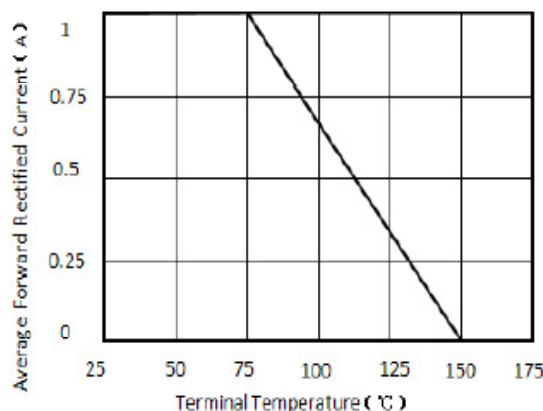


Figure 1. Forward Current Derating Curve

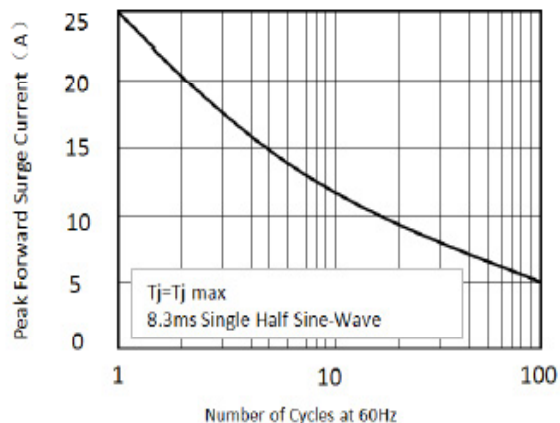


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

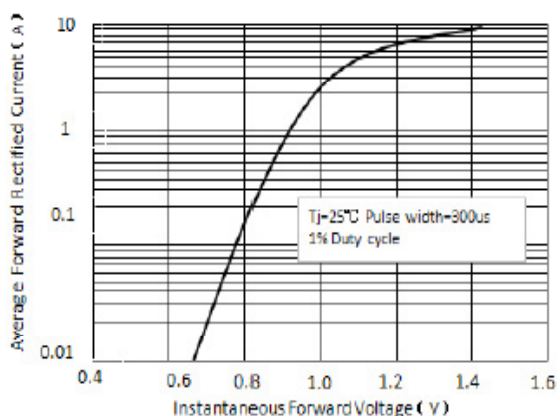


Figure 3. Typical Instantaneous Forward Characteristics

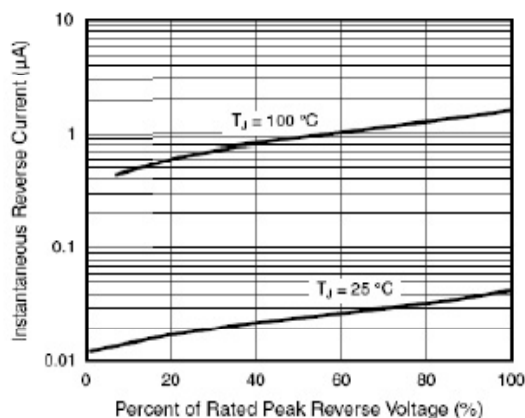


Figure 4. Typical Reverse Characteristics

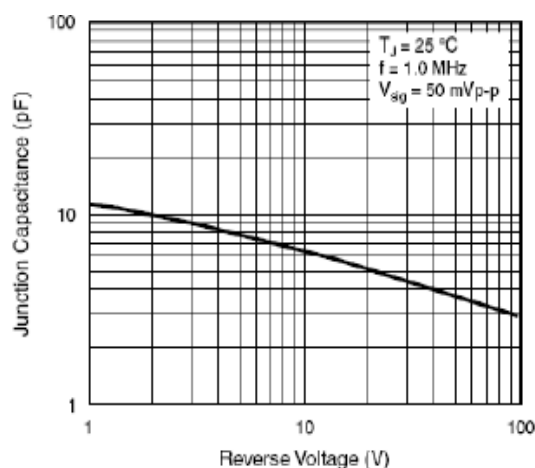


Figure 5. Typical Junction Capacitance

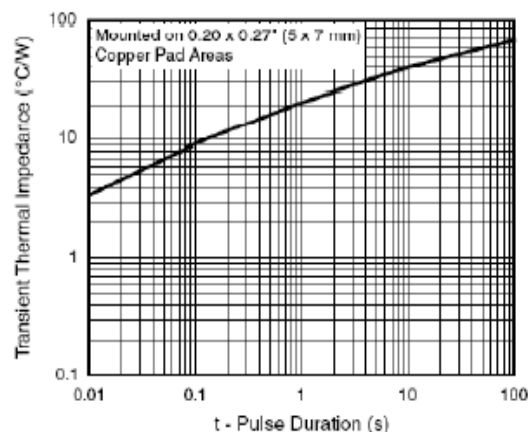


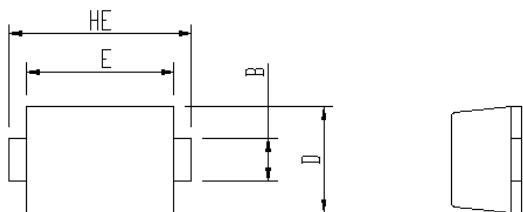
Figure 6. Typical Transient Thermal Impedance

GSGP1A thru GSGP7A

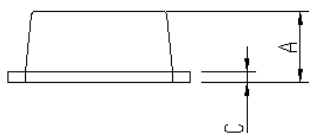
Surface Mount Glass Passivated Standard Rectifier
Reverse Voltage 50-1000V Forward Current 1A

Package Outline Dimensions

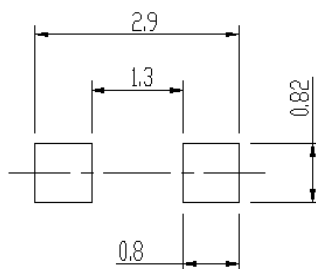
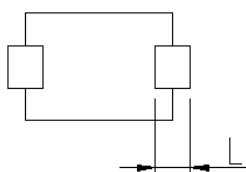
eSGP (SOD-323F)



Package	Unit:mm		Unit:inch	
	MIN	MAX	MIN	MAX
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

