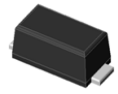


## Features

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



Package: eSGP  
(SOD-323F)



**RoHS**  
COMPLIANT

## Absolute Maximum Ratings (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	GSGP3U	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	200	V
Maximum RMS Voltage	V <sub>RMS</sub>	140	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	200	V
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	1.0	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I <sub>FSM</sub>	25	A
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	- 55 to + 150	°C

## Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Test Conditions	Symbol	GSGP3U	Unit
Maximum Instantaneous Forward Voltage	1 A	V <sub>F</sub>	0.95(typ:0.88)	V
Maximum DC Reverse Current	T <sub>A</sub> =25°C	I <sub>R</sub>	5	μA
	T <sub>A</sub> =125°C		50	
Maximum Reverse Recovery Time	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>rr</sub> =0.25A	t <sub>rr</sub>	35	nS
Typical Junction Capacitance	4.0 V, 1 MHz	C <sub>J</sub>	9.5	pF
Typical Thermal Resistance <sup>1)</sup>	Junction to Ambient	R <sub>θJA</sub>	97	°C/W
	Junction to Lead	R <sub>θJL</sub>	27	

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

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

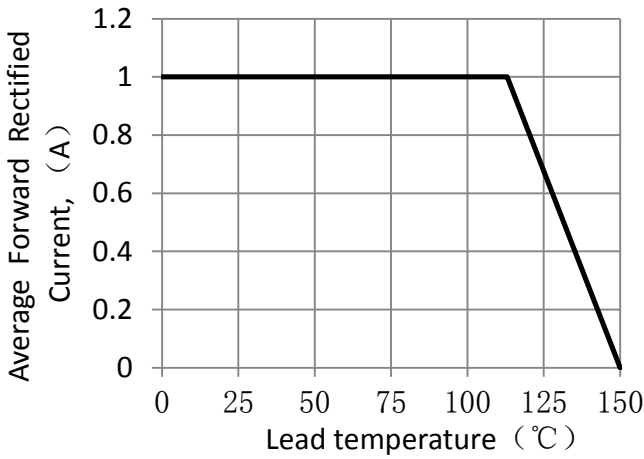


Figure 1. Forward Current Derating Curve

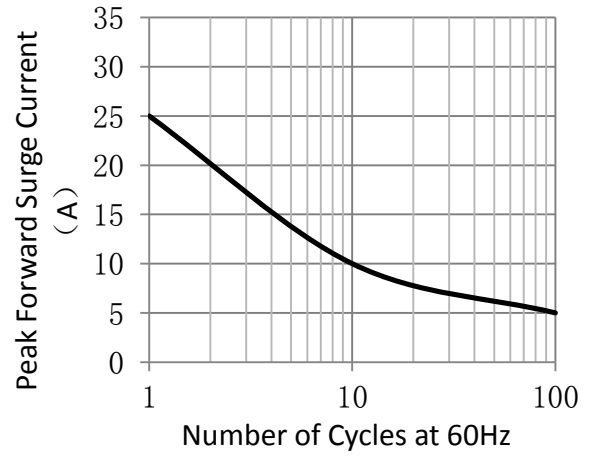


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

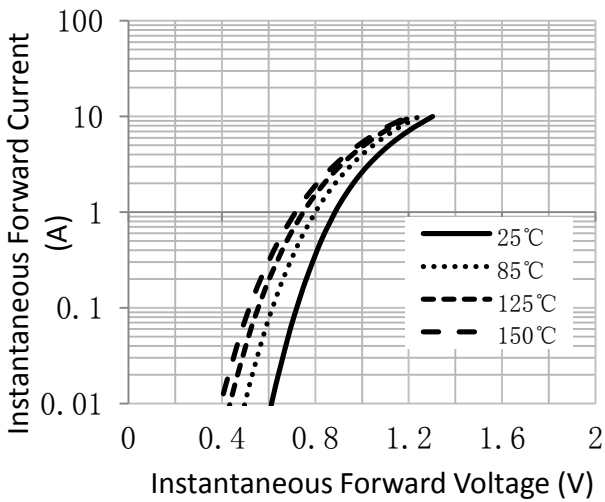


Figure 3. Typical Instantaneous Forward Characteristics

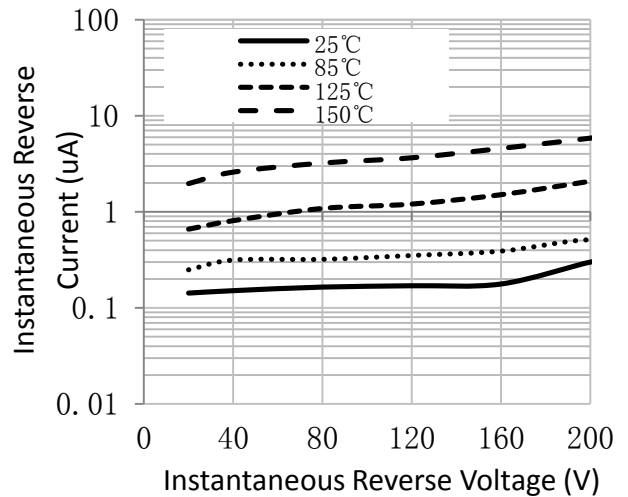


Figure 4. Typical Reverse Characteristics

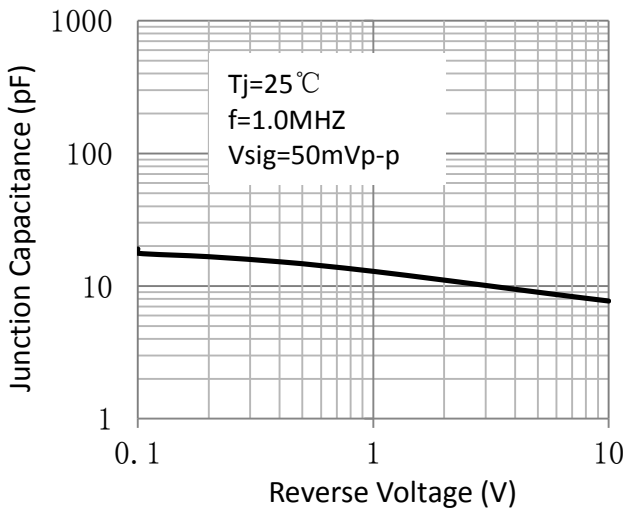


Figure 5. Typical Junction Capacitance

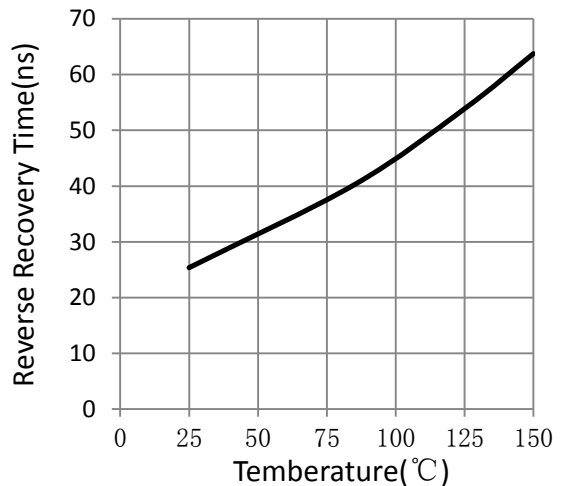
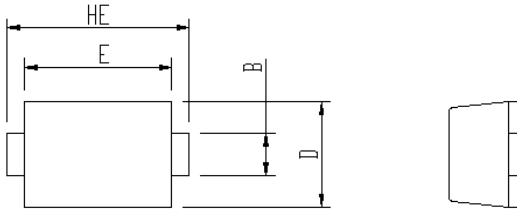
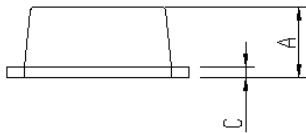


Figure 6. Typical reverse recovery time

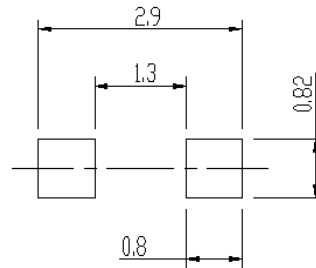
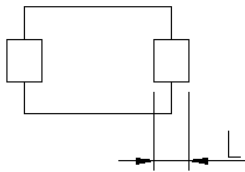
**Package Outline Dimensions**



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**

- 1), 3000 pcs/Reel, 40 Reels/Box; 8mm Tape, 7" Reel
- 2), 10000 pcs/Reel, 16 Reels/Box; 8mm Tape, 13" Reel

**Tape & Reel Specification**

