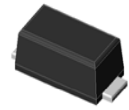


# GSGP0140SD thru GSGP0160SD

Surface Mount Schottky Rectifier  
 Reverse Voltage 40-60V Forward Current 1A

## Features

- Low forward voltage drop
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- Solder dip 260 °C, 10 s
- Low profile, typical thickness 1.0mm
- Halogen-free according to IEC 61249-2-21 definition



Package: eSGP  
(SOD-323F)



RoHS  
COMPLIANT

## Applications

For use in fast switching in RF module, lighting, cell phone, portable devices, power supplies and other consumer applications.

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

Parameter	Symbol	GSGP0140SD	GSGP0160SD	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	40	60	V
Maximum RMS Voltage	V <sub>RMS</sub>	28	42	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	40	60	V
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	1.0		A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	I <sub>FSM</sub>	25		A
Operating Junction Temperature Range	T <sub>J</sub>	- 55 to + 150		°C
Storage Temperature Range	T <sub>STG</sub>	- 55 to + 150		°C

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

Parameter	Test Conditions	Symbol	GSGP0140SD	GSGP0160SD	Unit
Instantaneous Forward Voltage	I <sub>F</sub> =1A	V <sub>F</sub>	0.55	0.70	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T <sub>A</sub> =25°C T <sub>A</sub> =125°C	I <sub>R</sub>	0.1 30		mA
Typical Junction Capacitance	4.0 V, 1 MHz	C <sub>J</sub>	60		pF
Typical Thermal Resistance	Junction to Mount	R <sub>θJM</sub> <sup>1)</sup>	40		°C/W

Note:1) The thermal resistance from junction to mount, 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)

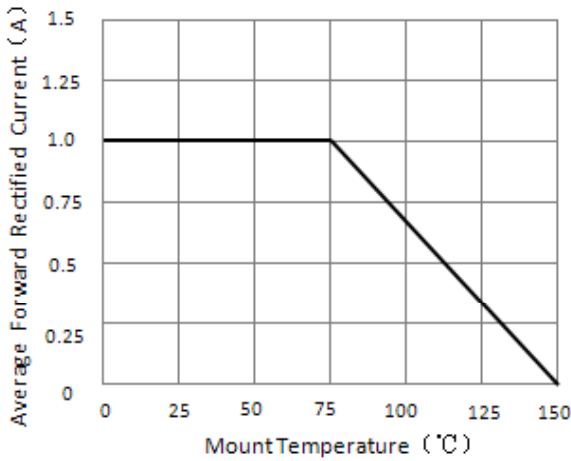


Figure 1. Forward Current Derating Curve

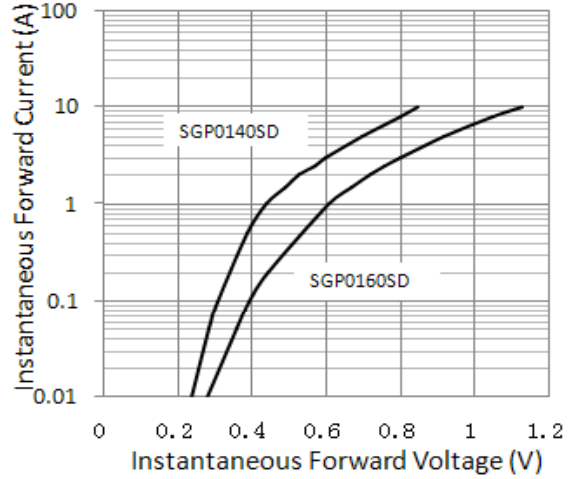


Figure 2. Typical Instantaneous Forward Characteristics

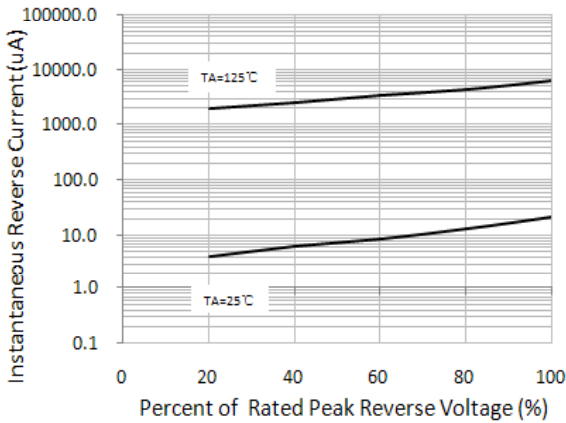


Figure 3. Typical Reverse Characteristics

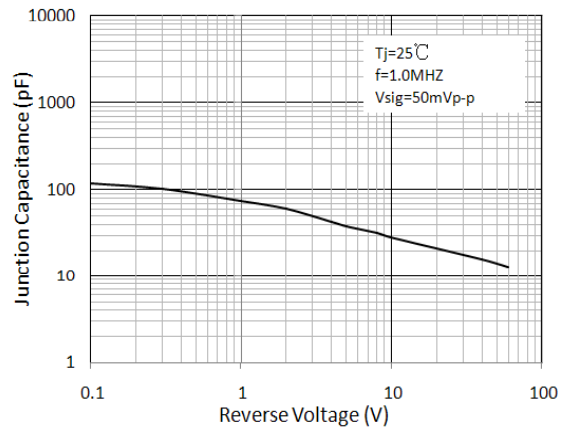


Figure 4. Typical Junction Capacitance

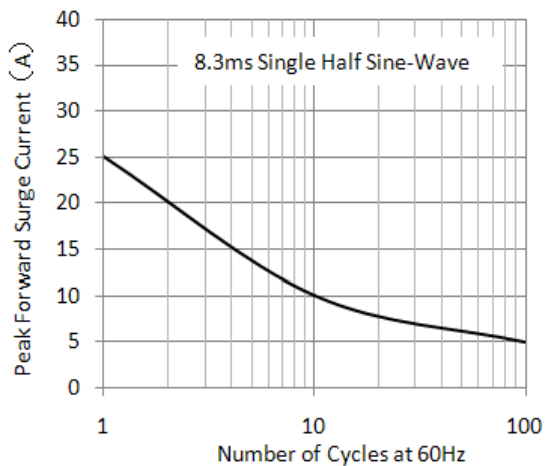


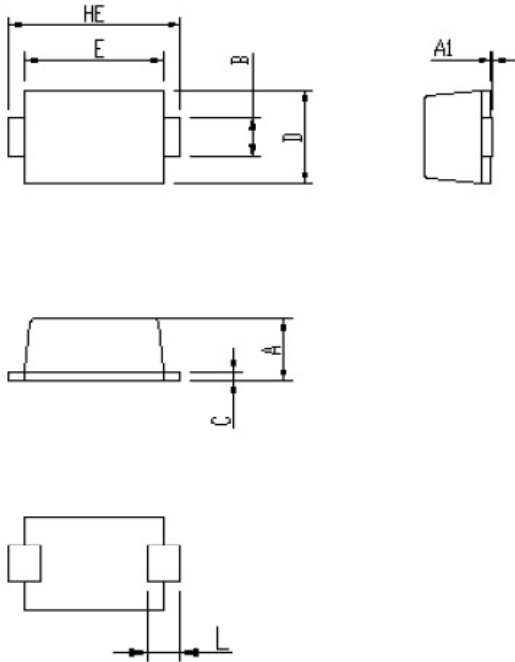
Figure 5. Maximum Non-Repetitive Peak Forward Surge Current

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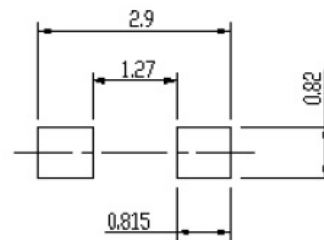
## Package Outline Dimensions

eSGP (SOD-323F)



DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
A	0.9	1.08	0.035	0.043
A1	0	0.1	0.000	0.004
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	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

