



# SGPD520S thru SGPD560S

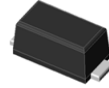
Surface Mount Schottky Rectifier  
Reverse Voltage 20~60V Forward Current 0.5A

## Features

- Low VF Schottky barrier diodes
- Very low profile - typical height of 1.0 mm
- Low forward voltage drop
- Low leakage current
- 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



RoHS  
COMPLIANT



eSGP(SOD-323F)

## Typical Applications

For use of fast swiching in RF module, lighting, cellular phone, portable device, power supplies and other consumer applications.

Maximum Ratings (TA = 25 °C unless otherwise noted)					
Parameter	Symbol	SGPD520S	SGPD540S	SGPD560S	Unit
Maximum repetitive peak reverse voltage	VRRM	20	40	60	V
Maximum RMS voltage	VRMS	14	28	42	V
Maximum DC blocking voltage	VDC	20	40	60	V
Maximum average forward rectified current	IF(AV)	0.5			A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	15			A
Operating junction and storage temperature range	TJ, TSTG	- 55 to + 150			°C

Electrical Characteristics (TA = 25 °C unless otherwise noted)						
Parameter	Test Conditions	Symbol	SGPD520S	SGPD540S	SGPD560S	Unit
Maximum instantaneous forward voltage	0.5A	V <sub>F</sub>	0.45	0.50	0.60	Volts
Maximum DC reverse current at rated DC blocking voltage	TA=25°C	I <sub>R</sub>	80	80	50	uA
	TA=125°C		30			mA
Typical junction capacitance	4.0 V, 1 MHz	C <sub>J</sub>	34	25	22	pF
Typical thermal resistance	junction to mount	R <sub>θJM</sub>	55			°C/W

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



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## Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

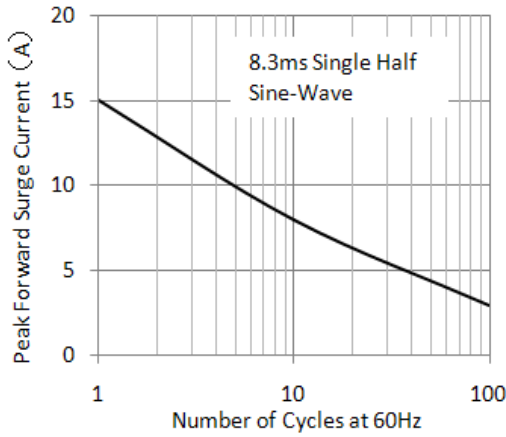


Figure 1. Maximum Non-Repetitive Peak Forward Surge Current

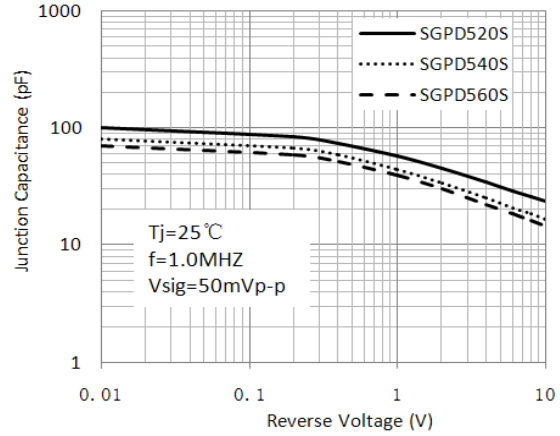


Figure 2. Typical Junction Capacitance

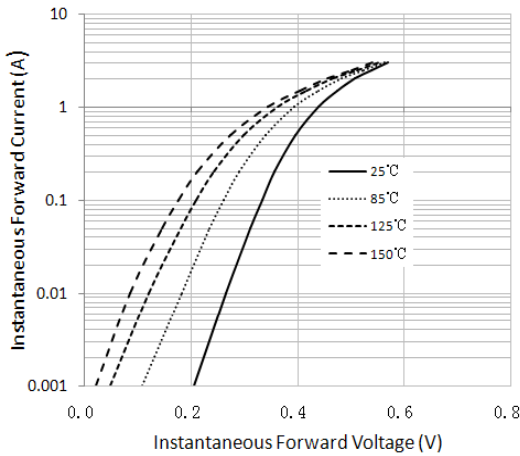


Figure 3. Typical Instantaneous Forward Characteristics (SGPD520S)

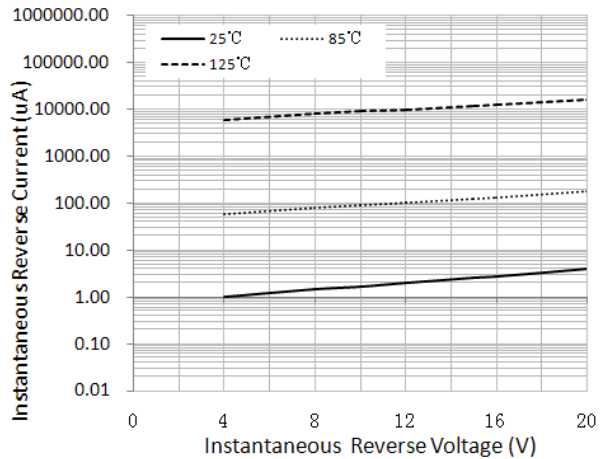


Figure 4. Typical Reverse Characteristics (SGPD520S)

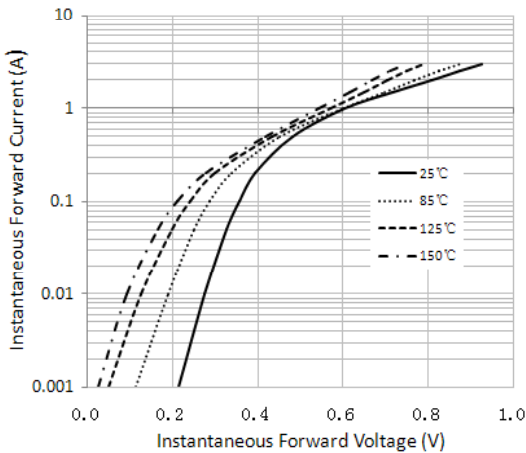


Figure 5. Typical Instantaneous Forward Characteristics (SGPD540S)

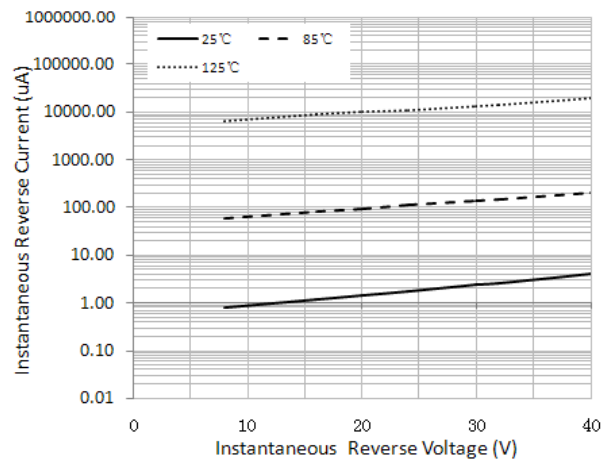


Figure 6. Typical Reverse Characteristics (SGPD540S)



# **SGPD520S thru SGPD560S**

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## Ratings and Characteristics Curves

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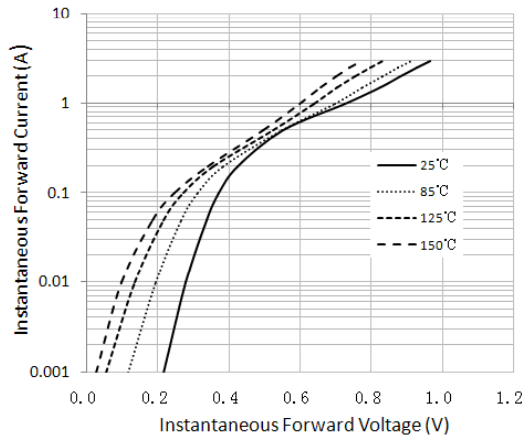


Figure 7. Typical Instantaneous Forward Characteristics (SGPD560S)

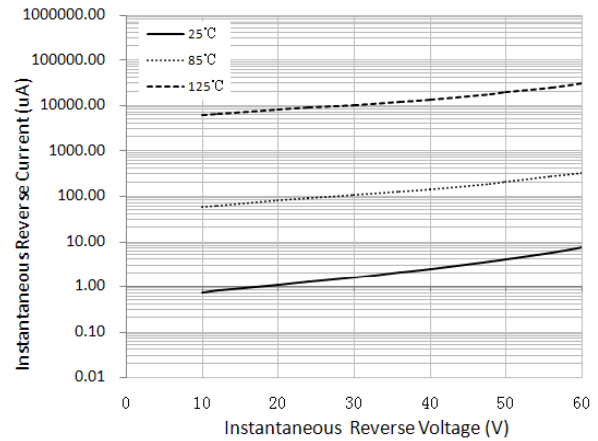
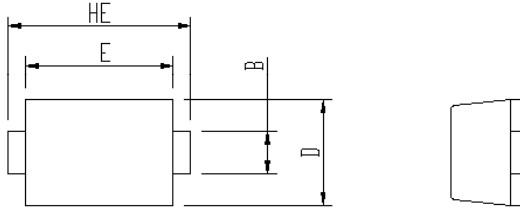


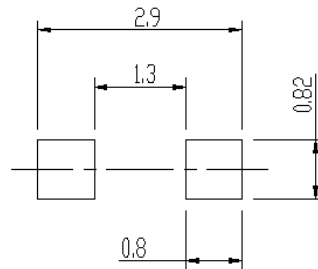
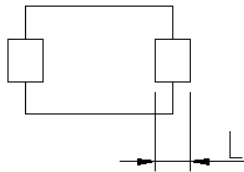
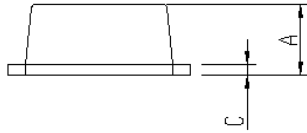
Figure 8. Typical Reverse Characteristics (SGPD560S)

## 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

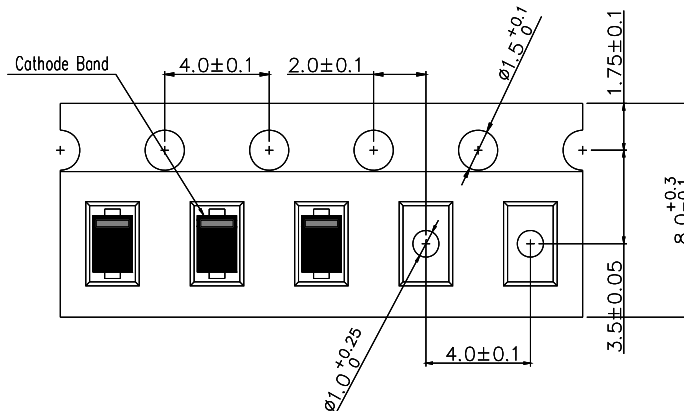


## Packing Information

### Packing quantities:

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

### Tape & Reel Specification





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