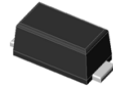


## Features

- 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	SGP0120SD	Unit
Maximum repetitive peak reverse voltage	VRRM	20	V
Maximum RMS voltage	VRMS	14	V
Maximum DC blocking voltage	VDC	20	V
Maximum average forward rectified current	IF(AV)	1.0	A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	25	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	SGP0120SD	Unit
Maximum instantaneous forward voltage	1 A	V <sub>F</sub>	0.45	Volts
Maximum DC reverse current at rated DC blocking voltage	TA=25°C TA=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>	40	°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

(TA = 25°C unless otherwise noted)

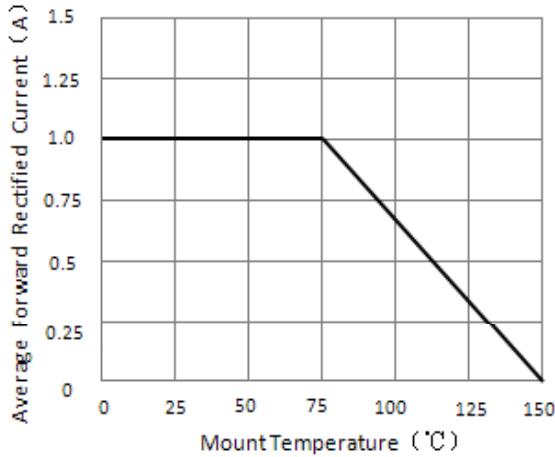


Figure 1. Forward Current Derating Curve

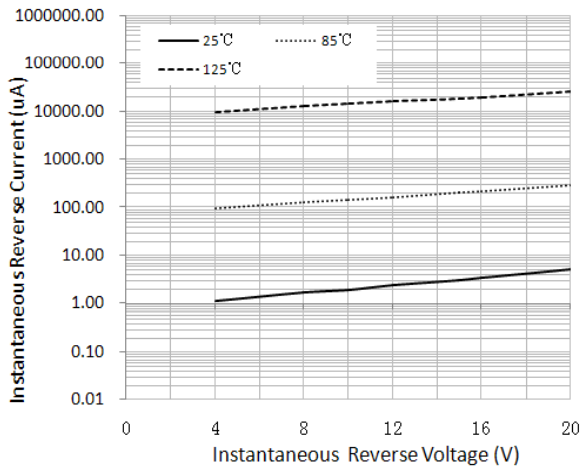


Figure 3. Typical Reverse Characteristics

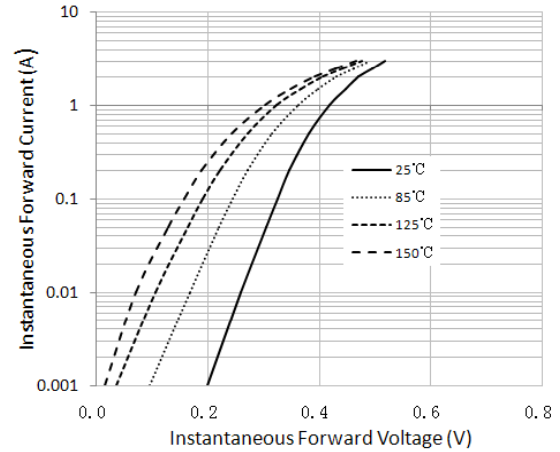


Figure 2. Typical Instantaneous Forward Characteristics

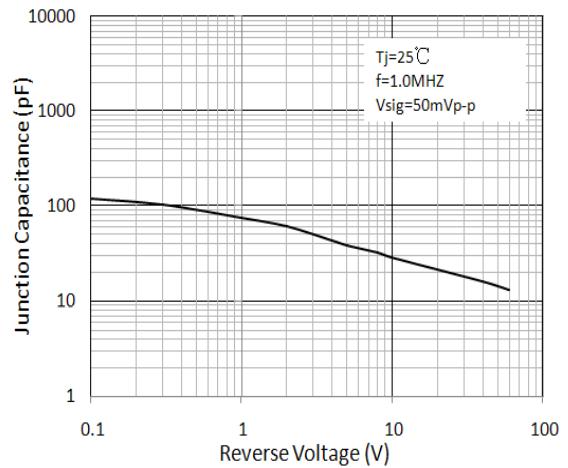


Figure 4. Typical Junction Capacitance

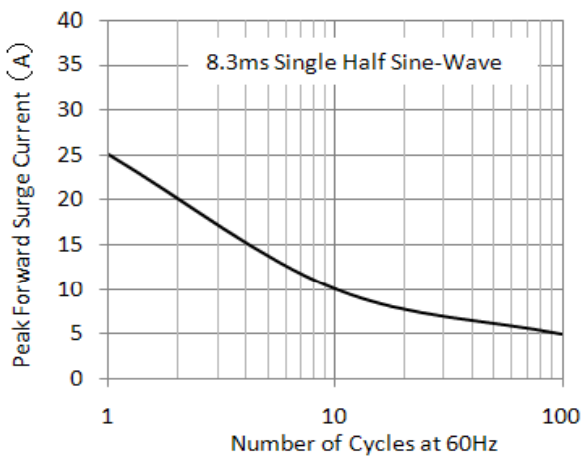


Figure 5. Maximum Non-Repetitive Peak Forward Surge Current





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