



SGP0140SD thru SGP0160SD

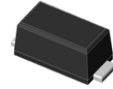
Surface Mount Schottky Rectifier
Reverse Voltage 40~60V Forward Current 1A

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 switching in RF module, lighting, cellular phone, portable device, power supplies and other consumer applications.

Maximum Ratings (TA = 25 °C unless otherwise noted)

Parameter	Symbol	SGP0140SD	SGP0160SD	Unit
Maximum repetitive peak reverse voltage	VRRM	40	60	V
Maximum RMS voltage	VRMS	28	42	V
Maximum DC blocking voltage	VDC	40	60	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	SGP0140SD	SGP0160SD	Unit
Maximum instantaneous forward voltage	1 A	V _F	0.55	0.70	Volts
Maximum DC reverse current at rated DC blocking voltage	TA=25°C TA=125°C	I _R	0.1 30		mA
Typical junction capacitance	4.0 V, 1 MHz	C _J	60		pF
Typical thermal resistance	junction to mount	R _{θJM}	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

(TA = 25°C unless otherwise noted)

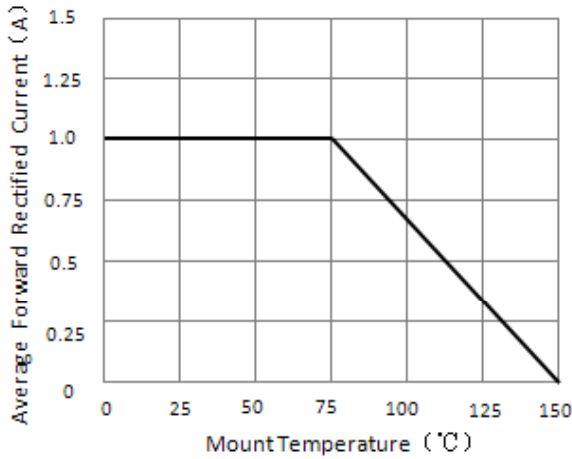


Figure 1. Forward Current Derating Curve

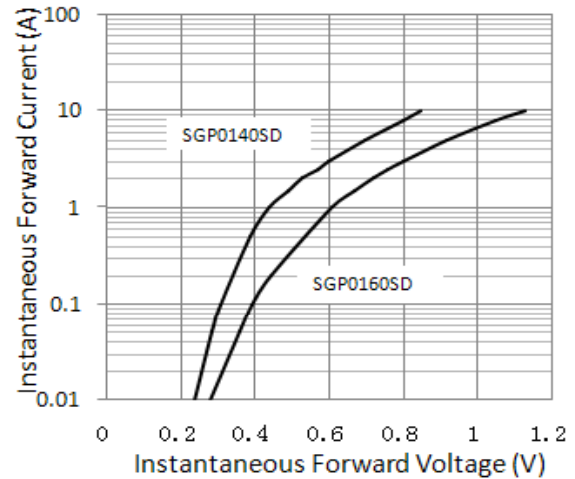


Figure 2. Typical Instantaneous Forward Characteristics

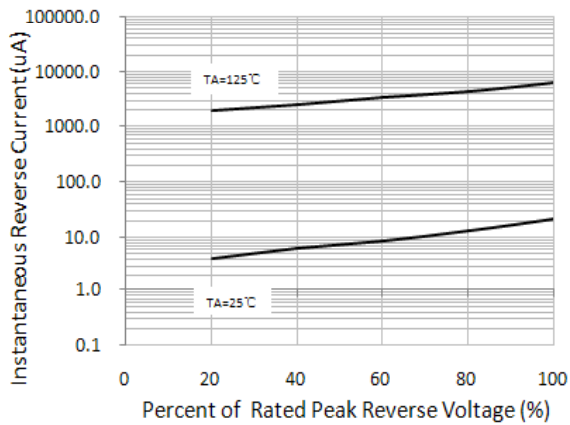


Figure 3. Typical Reverse Characteristics

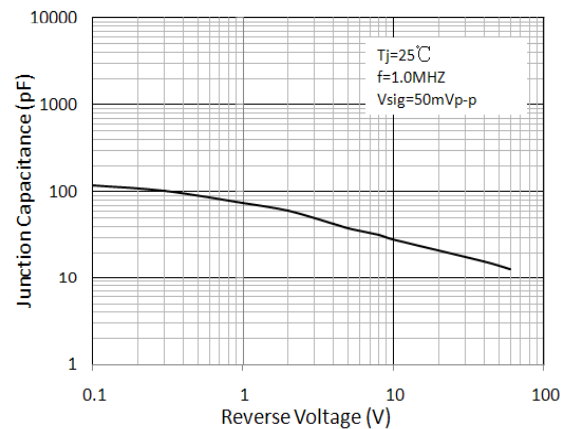


Figure 4. Typical Junction Capacitance

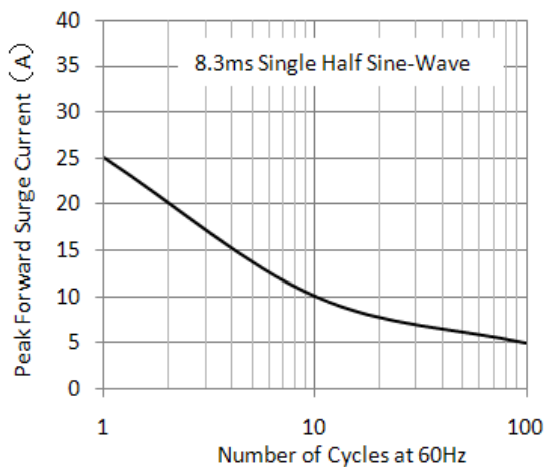


Figure 5. Maximum Non-Repetitive Peak Forward Surge Current



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