SGP0120SD

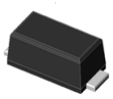
Surface Mount Schottky Rectifier

Reverse Voltage 20V 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℃/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_F	0.45	Volts
Maximum DC reverse current at rated DC blocking voltage	TA=25℃ TA=125℃	I_R	0.1 30	mA
Typical junction capacitance	4.0 V, 1 MHz	C_J	60	pF
Typical thermal resistance	juntion to mount	$R_{\theta JM}$	40	℃/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℃ unless otherwise noted)

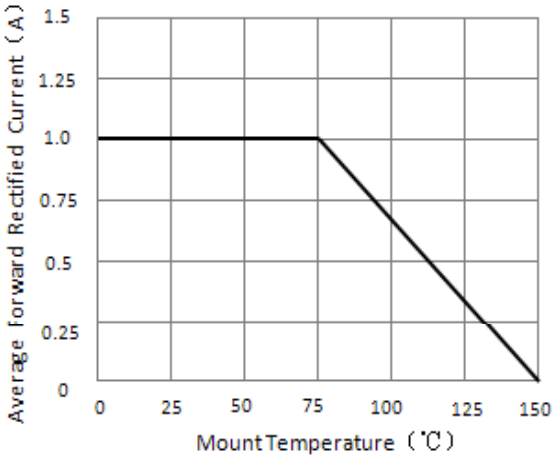


Figure 1.Forward Current Derating Curve

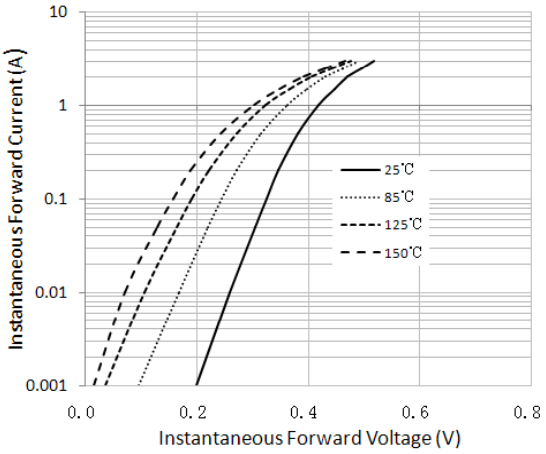


Figure 2. Typical Instantaneous Forward Characteristics

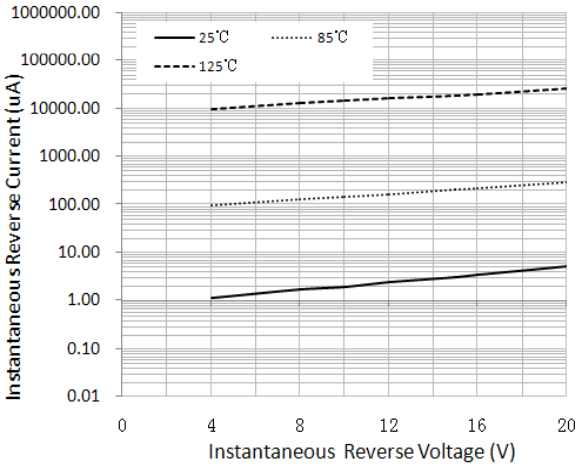


Figure 3. Typical Reverse Characteristics

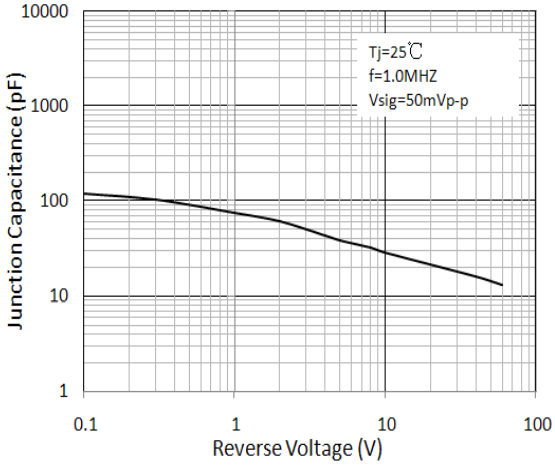


Figure 4. Typical Junction Capacitance

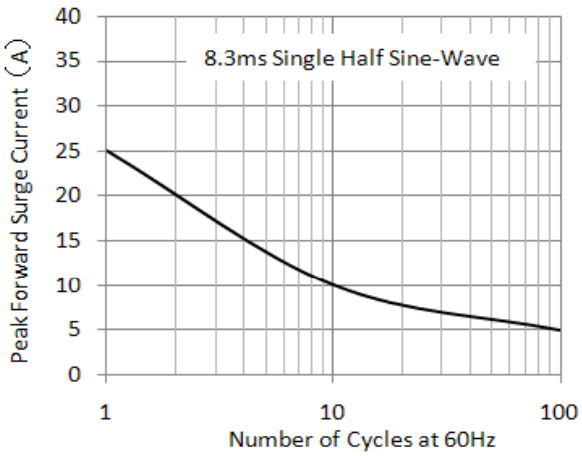
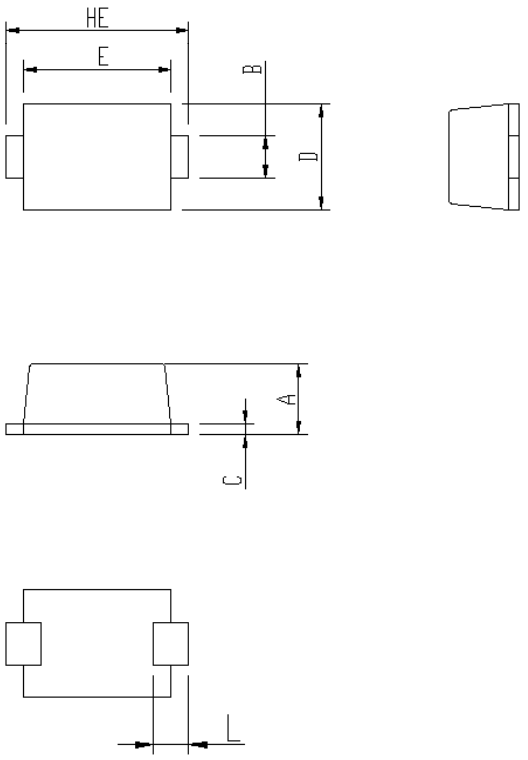


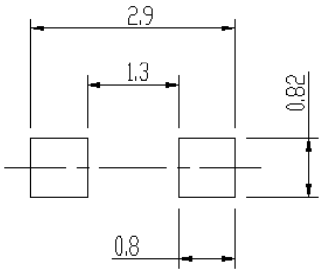
Figure 5.Maximum Non-Repetitive Peak Forward Surge Current

Package Outline Dimensions



Package	Unit:mm		Unit:inch	
eSGP	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

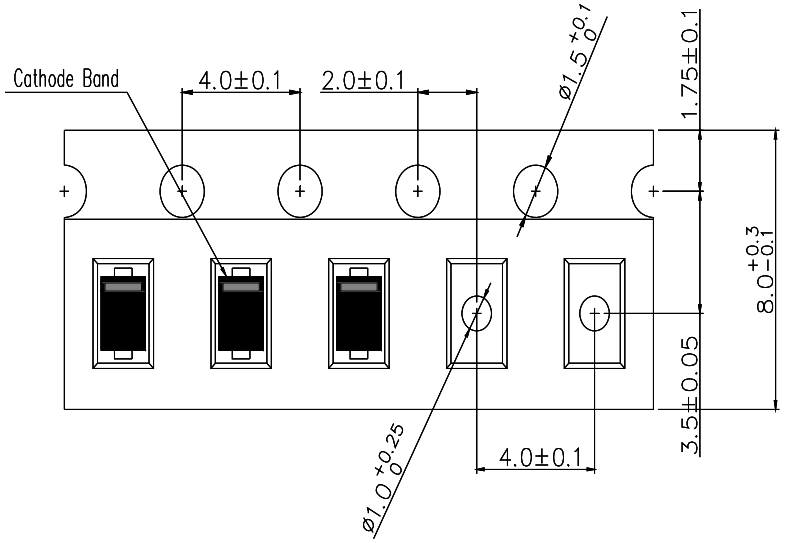


Packing Information

Packing quantities:

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

Tape & Reel Specification



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