



ASGP0130SD thru ASGP0160SD

Surface Mount Schottky Rectifier
Reverse Voltage 30~60V 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
- AEC-Q101 qualified



RoHS
COMPLIANT



eSGP(SOD-323F)

Typical Applications

For use of fast switching in RF module, lighting, cellular phone, portable device, power supplies and automotive applications.

Maximum Ratings (TA = 25 °C unless otherwise noted)					
Parameter	Symbol	ASGP0130SD	ASGP0140SD	ASGP0160SD	Unit
Maximum repetitive peak reverse voltage	VRRM	30	40	60	V
Maximum RMS voltage	VRMS	21	28	42	V
Maximum DC blocking voltage	VDC	30	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
Peak Repetitive Reverse Surge Current at tp=2us,1KHZ	IRRM	0.5			A
Operating junction and storage temperature range	TJ, TSTG	- 55 to + 125		- 55 to + 150	°C

Electrical Characteristics (TA = 25 °C unless otherwise noted)						
Parameter	Test Conditions	Symbol	ASGP0130SD	ASGP0140SD	ASGP0160SD	Unit
Minimum Breakdown voltage	Ta=25 °C IR=1mA	V _{BR}	30	40	60	Volts
Maximum instantaneous forward voltage	IF=1A, Ta=25°C	V _F	0.55		0.70	
	IF=1A, Ta=125°C		0.48		0.60	
Maximum DC reverse current at rated DC blocking voltage	Ta=25°C	I _R	50			uA
	Ta=125°C		10			mA
Typical junction capacitance	4.0 V, 1 MHz	C _J	60		pF	
Typical thermal resistance	Junction to Lead	R _{θJL}	40		°C/W	

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

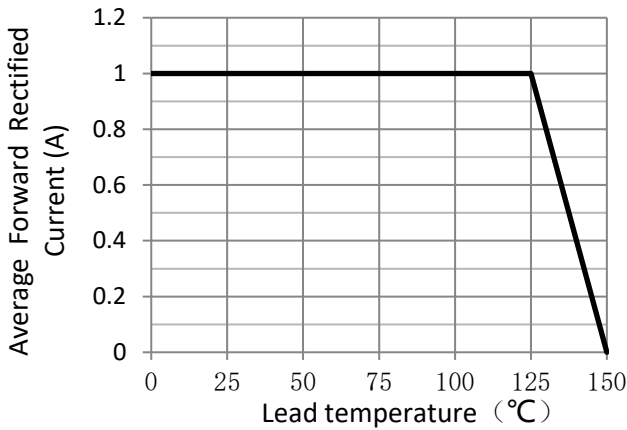


Figure 1. Forward Current Derating Curve

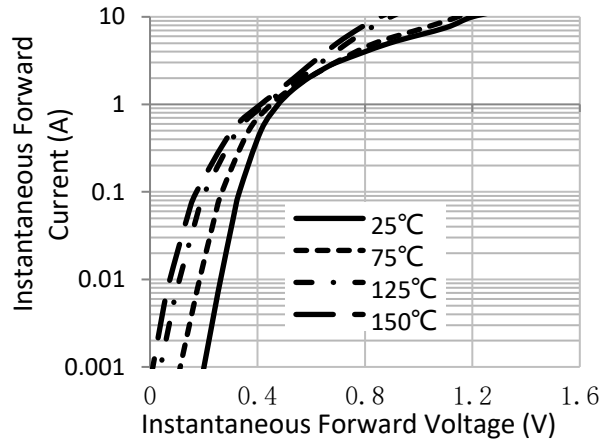


Figure 2. Typical Instantaneous Forward Characteristics (ASGP0130SD thru ASGP0140SD)

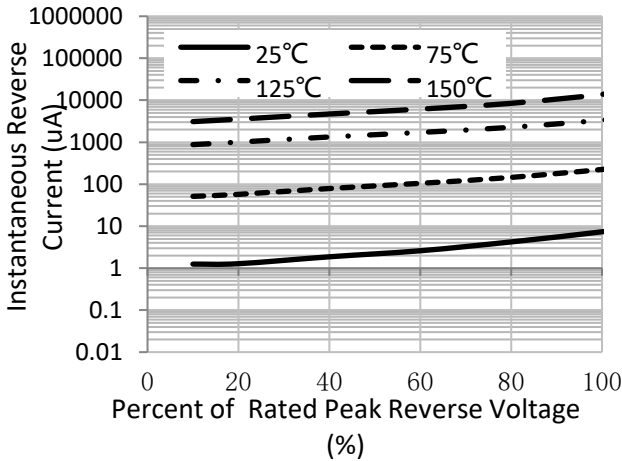


Figure 3. Typical Reverse Characteristics

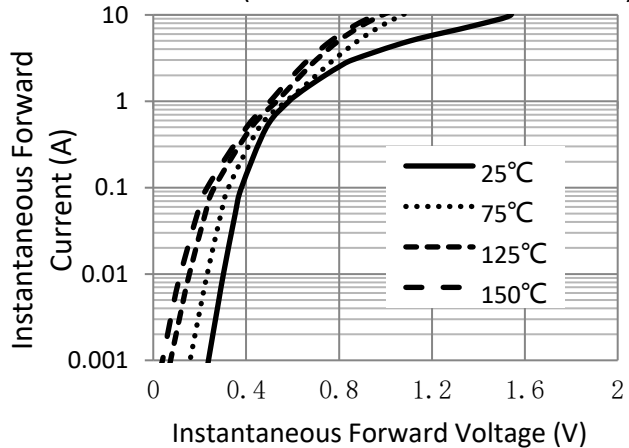


Figure 4. Typical Instantaneous Forward Characteristics (ASGP0160SD)

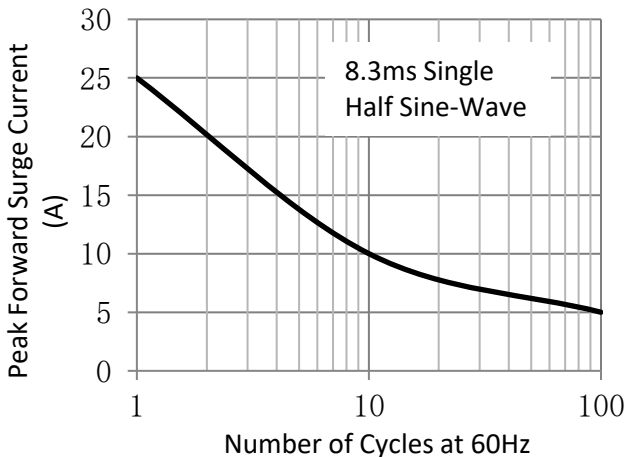


Figure 5. Maximum Non-Repetitive Peak Forward Surge Current

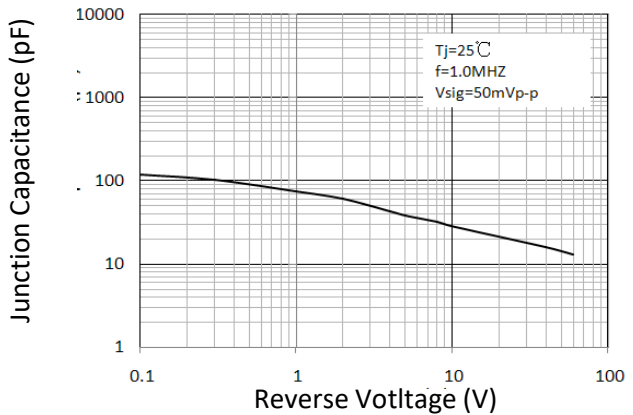


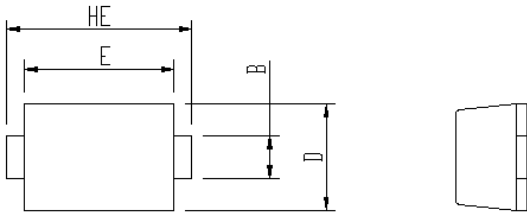
Figure 6. Typical Junction Capacitance



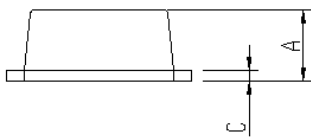
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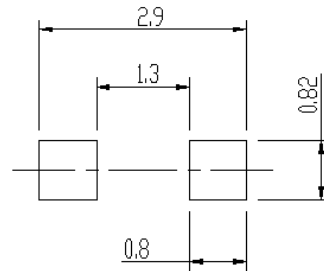
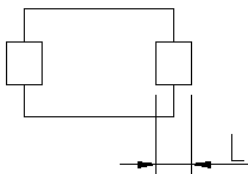
Package Outline Dimensions



Package	Unit:mm		Unit:inch	
	M N	M A X	M N	M A X
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

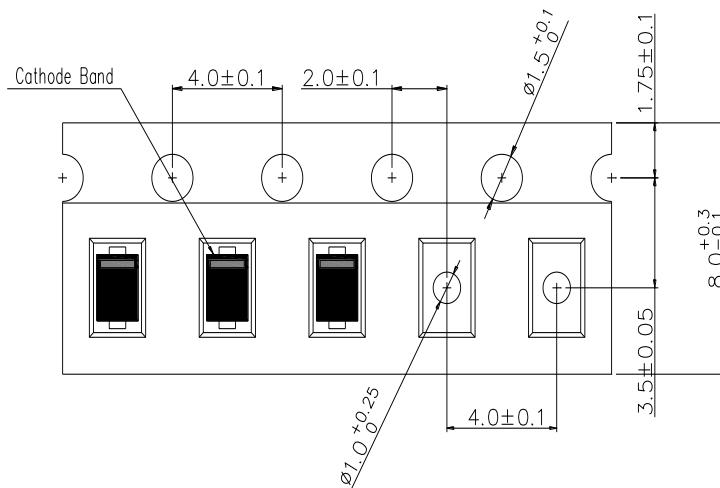


Packing Information

Packing quantities:

- 1),3000 pcs/Reel, 40 Reels/Box; 8mm Tape, 7" Reel
- 2),10000 pcs/Reel, 16 Reels/Box; 8mm Tape, 13" Reel

Tape & Reel Specification





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