

GSPS1150 thru GSPS1200

Surface Mount Schottky Rectifier
 Reverse Voltage 150 to 200V Forward Current 1A

Features

- Heatsink structure
- Low profile, typical thickness 0.8mm
- Super Low VF Schottky barrier diodes
- Moisture sensitivity: level 1, per J-STD-020
- High temperature soldering guaranteed: 260°C/10 seconds



Package: iSGA
 (SOD-123HS)



RoHS
 COMPLIANT

Applications

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

Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	GSPS1150	GSPS1200	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	150	200	V
Maximum RMS Voltage	V _{RMS}	105	140	V
Maximum DC Blocking Voltage	V _{DC}	150	200	V
Maximum Average Forward Rectified Current	I _{F(AV)}	1.0		A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load	I _{FSM}	40.0		A
Operating Junction Temperature Range	T _J	- 55 to + 150		°C
Storage Temperature Range	T _{STG}	- 55 to + 150		°C

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Test Conditions	Symbol	GSPS1150	GSPS1200	Unit
Minimum Breakdown Voltage	T _A =25°C, I _R =1mA	V _{BR}	150	200	V
Maximum Instantaneous Forward Voltage	I _F =0.5A, T _A =25°C	V _F	0.80		
	I _F =1A, T _A =25°C		0.85		
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _A =25°C	I _R	2		uA
	T _A =125°C		200		uA
Typical Thermal Resistance	Junction to Ambient	R _{θJA} ¹	65		°C/W
	Junction to Lead	R _{θJL} ¹	9		
	Junction to Case	R _{θJC} ²	35		

Note:1),The thermal resistance from junction to ambient or lead, mounted on P.C.B with 5×5mm copper pads,2 OZ,FR4 PCB

2),The thermal resistance from junction to case, mounted on P.C.B with recommended copper pads,2 OZ,FR4 PCB

Ratings and Characteristics Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

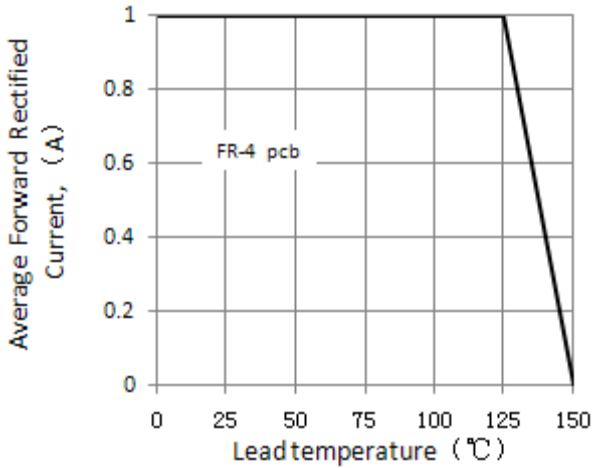


Figure 1. Forward Current Derating Curve

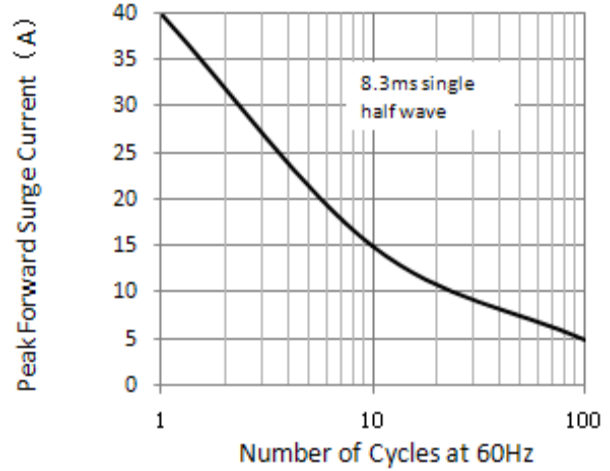


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

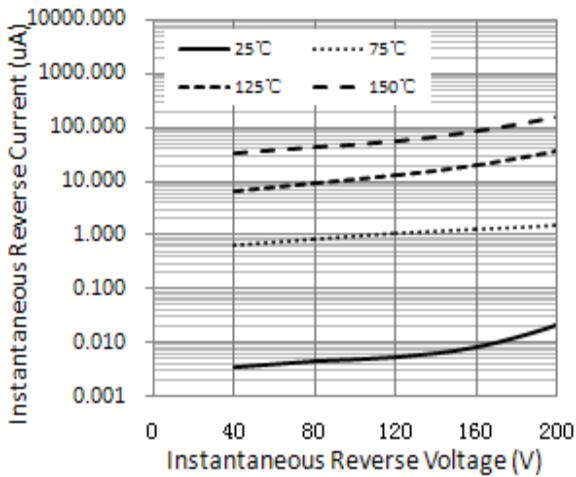


Figure 3. Typical Instantaneous Reverse Characteristics

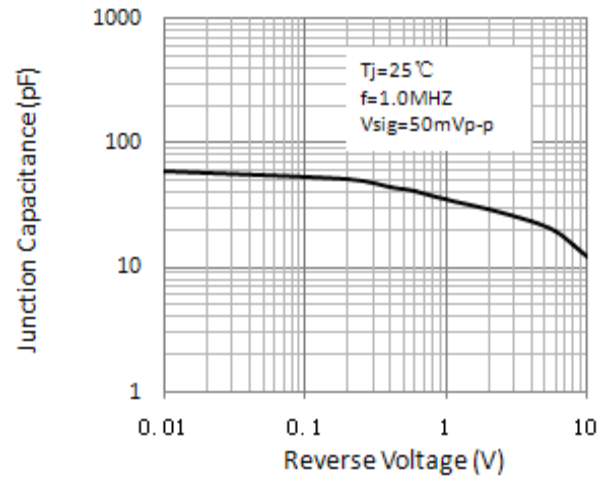


Figure 4. Typical Junction Capacitance

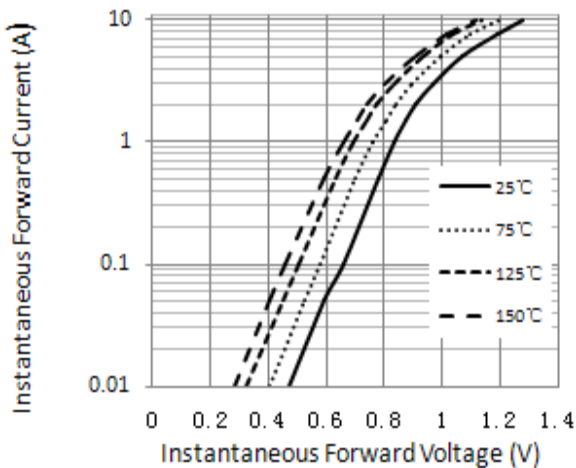
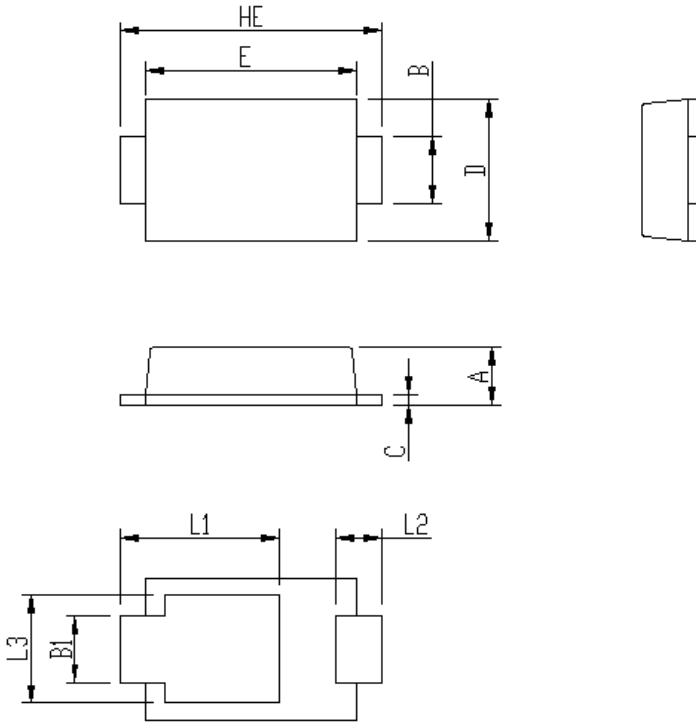


Figure 5. Typical Instantaneous Forward Characteristics

GSPS1150 thru GSPS1200

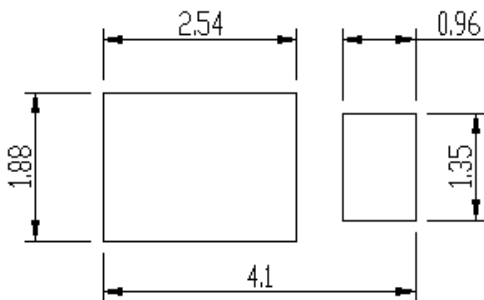
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Package Outline Dimensions iSGA(SOD-123HS)



Package	iSGA	
	Unit:mm	
	MIN	MAX
A	0.75	0.90
B	0.85	1.05
B1	0.85	1.05
C	0.1	0.25
D	1.9	2.1
E	2.9	3.1
L1	2.0	2.45
L2	0.4	0.85
L3	1.3	1.7
HE	3.5	3.9

Recommended Pad Layout



Unit: mm