

GSP1A thru GSP7A

Surface Mount Glass Passivated Rectifiers
 Reverse Voltage 50-1000V Forward Current 1.0A

Features

- Glass passivated standard rectifiers
- Low profile, typical thickness 0.8mm
- Low forward voltage drop
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- Heatsink structure
- High temperature soldering guaranteed: 260°C/10 seconds



Package: iSGA
(SOD-123HS)



Applications

For use of general purpose rectification in lighting, cell phone, portable device, power supply and other consumer applications.

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

Parameter	Symbol	GS P1A	GS P2A	GS P3A	GS P4A	GS P5A	GS P6A	GS P7A	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	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							A
Rating for Fusing (t<8.3ms)	I ² t	7							A ² sec
Operating Junction and Storage Temperature Range	T _J , T _{STG}	- 55 to + 150							°C

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

Parameter	Test Conditions	Symbol	GS P1A	GS P2A	GS P3A	GS P4A	GS P5A	GS P6A	GS P7A	Unit
Minimum Breakdown Voltage	I _R =100μA	V _{BR}	400			600	1000			V
Maximum Instantaneous Forward Voltage	T _A =25°C I _F =1.0A T _A =125°C I _F =1.0A	V _F	1.0			0.88				
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _A =25°C T _A =125°C	I _R	5			50				μA
Typical Reverse Recovery Time	I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	t _{rr}	1.5							μs
Typical Junction Capacitance	4.0 V, 1 MHz	C _J	6.5							pF

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Typical Electrical Characteristic Curves

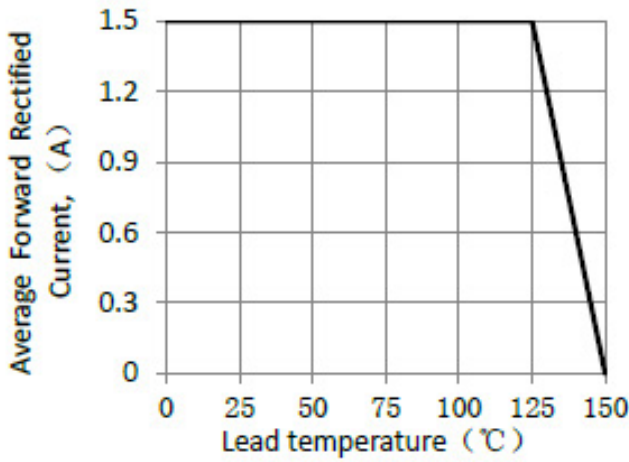


Figure 1. Forward Current Derating Curve

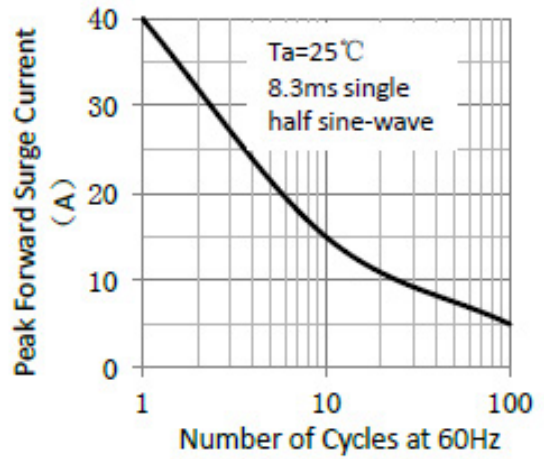


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

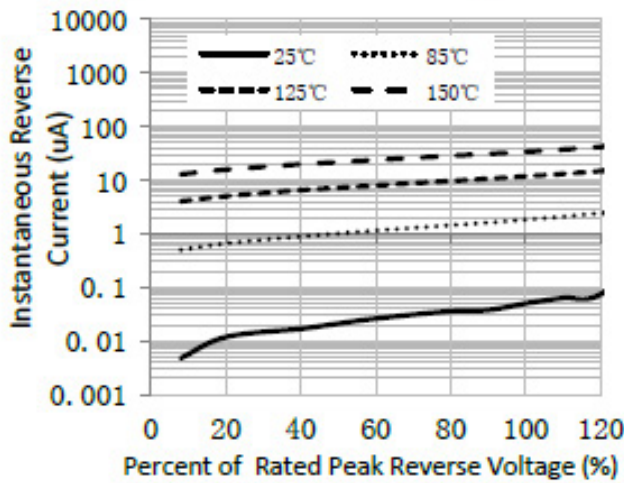


Figure 3. Typical Reverse Characteristics

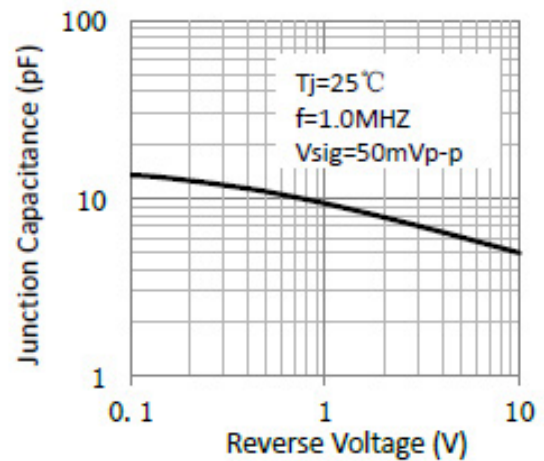


Figure 4. Typical Junction Capacitance

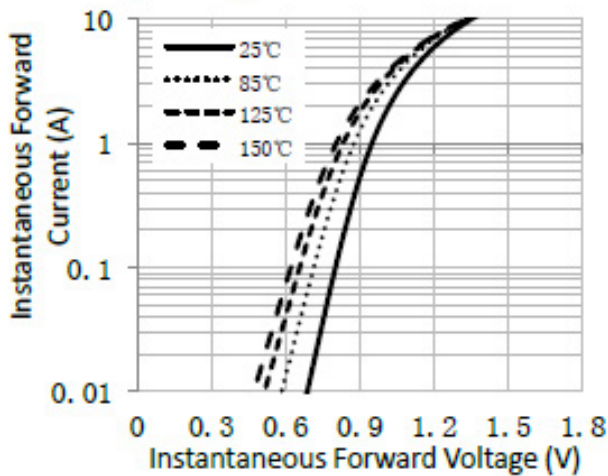
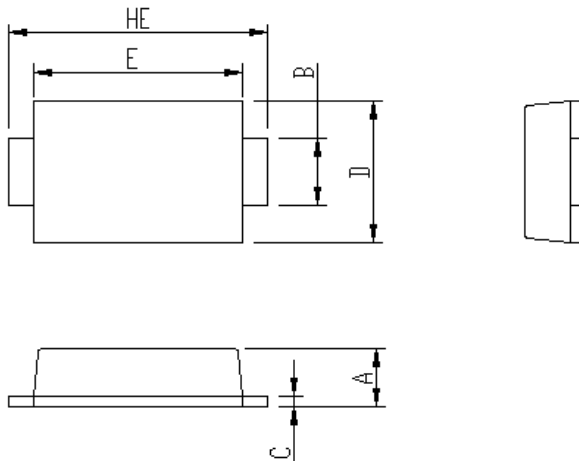


Figure 5. Typical Instantaneous Forward Characteristics

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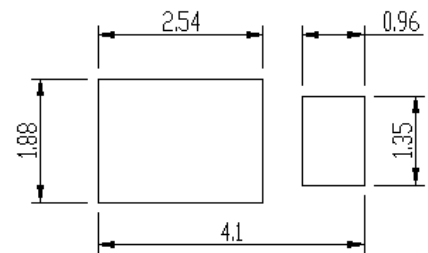
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Package Outline Dimensions iSGA (SOD-123HS)



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

Soldering footprint



Packing Information

Packing quantities:

Reel Size	Quantity/Reel	Quantity/Inner Box	Quantity/Carton
7"	3K	30K	120K

Tape & Reel Specification

