

Features

- Low V_F Schottky rectifier
- Low profile, typical thickness 0.8mm
- 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)



RoHS
COMPLIANT

Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	GPS2100	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	100	V
Maximum RMS voltage	V_{RMS}	70	V
Maximum DC blocking voltage	V_{DC}	100	V
Maximum average forward rectified current	$I_{F(AV)}$	2.0	A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	50	A
Rating for fusing($t < 8.3\text{ms}$)	I^2t	10	A^2sec
Operating junction temperature range	T_J	- 55 to + 150	$^\circ\text{C}$
Storage temperature range	T_{STG}	- 55 to + 150	$^\circ\text{C}$

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

Parameter	Test Conditions	Symbol	Typ.	Max.	Unit
Minimum Breakdown voltage	$T_A=25^\circ\text{C}, I_R=1\text{mA}$	V_{BR}	100		V
Instantaneous forward voltage	$I_F=2\text{A}, T_A=25^\circ\text{C}$	V_F	0.77	0.80	
	$I_F=2\text{A}, T_A=125^\circ\text{C}$	V_F	0.62	0.65	
Instantaneous reverse current at rated DC blocking voltage	$T_A=25^\circ\text{C}$	I_R	0.39	5	μA
	$T_A=125^\circ\text{C}$		181	500	μA
Typical junction capacitance	4.0 V, 1 MHz	C_J	60		pF
Typical thermal resistance	junction to ambient	$R_{\theta JA}^{1)}$	65		$^\circ\text{C/W}$
	junction to lead	$R_{\theta JL}^{1)}$	9		
	junction to case	$R_{\theta JC}^{2)}$	35		

Note:1),The thermal resistance from junction to ambient or lead, mounted on P.C.B with 5x5mm 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)

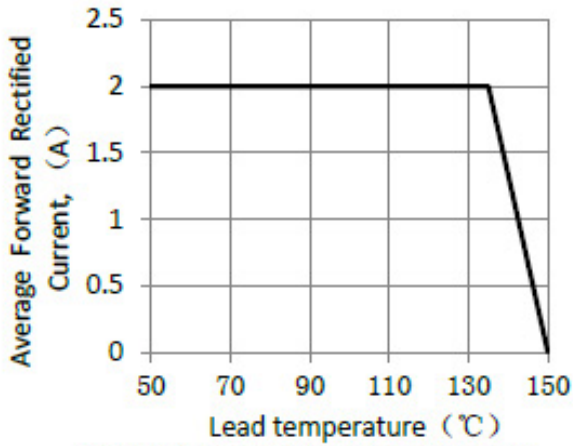


Figure 1. Forward Current Derating Curve

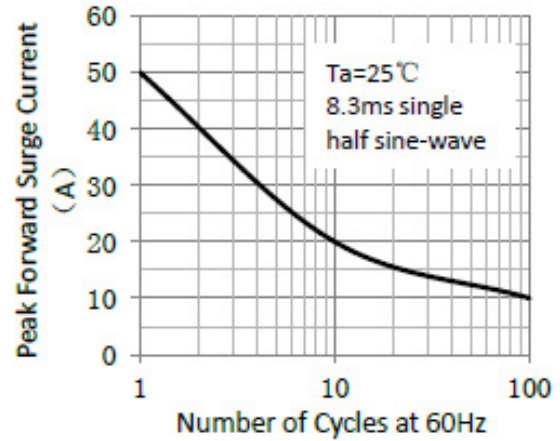


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

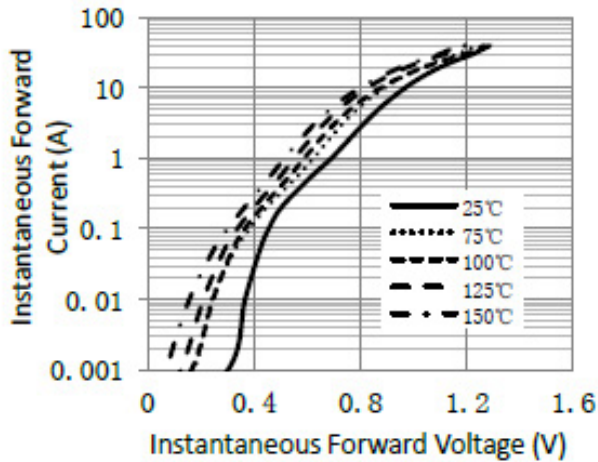


Figure 3. Typical Instantaneous Forward Characteristics

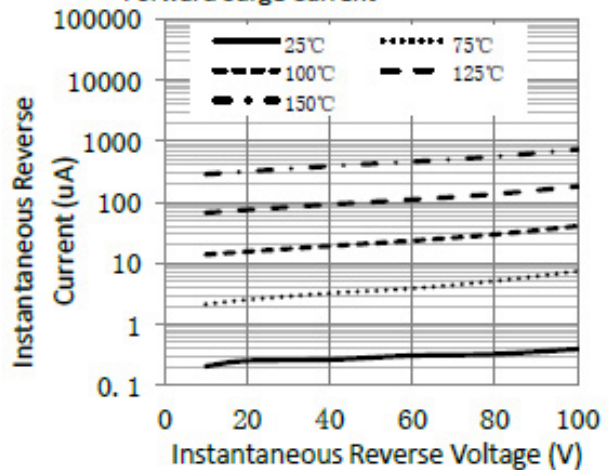


Figure 4. Typical Reverse Characteristics

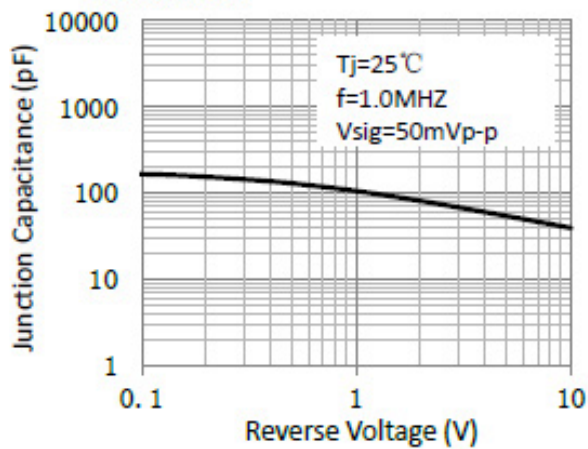
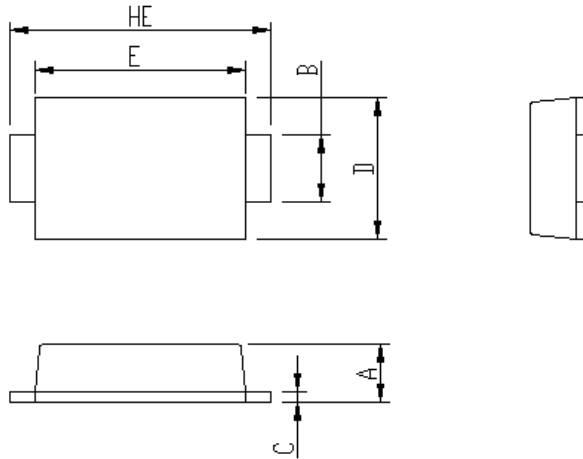


Figure 5. Typical Junction Capacitance

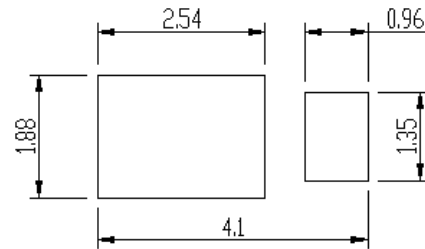
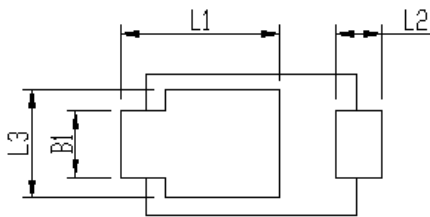
Package Outline Dimensions

iSGA(SOD-123HS)



Package	iSGA(SOD-123HS)	
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



Package Information

Reel size	Quantity/reel	Quantity/inner Box	Quantity/Carton
7"	3K	30K	120K

Tape & Reel Specification

