

GSPS35 thru GSPS36

Schottky Barrier Rectifier
 Reverse Voltage 50~60 V Forward Current 3.0 A

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)



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

Parameter	Symbol	GSPS35	GSPS36	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	60	V
Maximum RMS Voltage	V_{RMS}	35	42	V
Maximum DC Blocking Voltage	V_{DC}	50	60	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	3.0		A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	I_{FSM}	100		A
Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	41.7		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	$I_R=1\text{mA}$	V_{BR}	60		V
Instantaneous Forward Voltage	$I_F=3\text{A}, T_A=25^\circ\text{C}$	V_F	0.61	0.65	
	$I_F=3\text{A}, T_A=125^\circ\text{C}$	V_F	0.52	0.60	
Instantaneous Reverse Current at rated DC Blocking Voltage	$T_A=25^\circ\text{C}$	I_R	4.1	50	μA
	$T_A=125^\circ\text{C}$		3.8	10	mA
Typical Junction Capacitance	4.0 V, 1 MHz	C_J	160		pF
Typical Thermal Resistance	Junction to Ambient	$R_{\theta JA}^{1)}$	60		$^\circ\text{C/W}$
	Junction to Lead	$R_{\theta JL}^{1)}$	6		
	Junction to Case	$R_{\theta JC}^{2)}$	28		

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

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

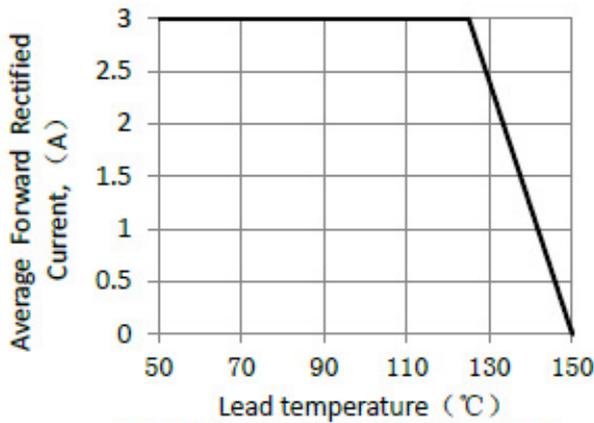


Figure 1. Forward Current Derating Curve

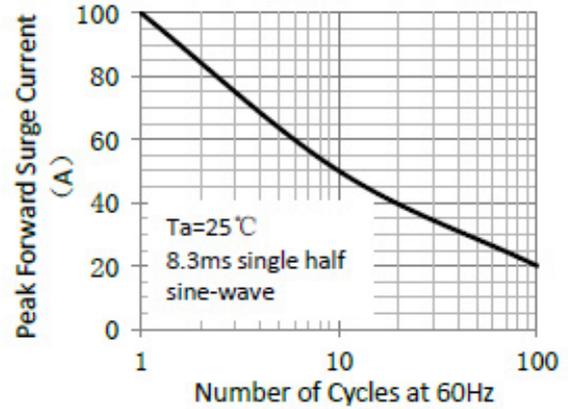


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

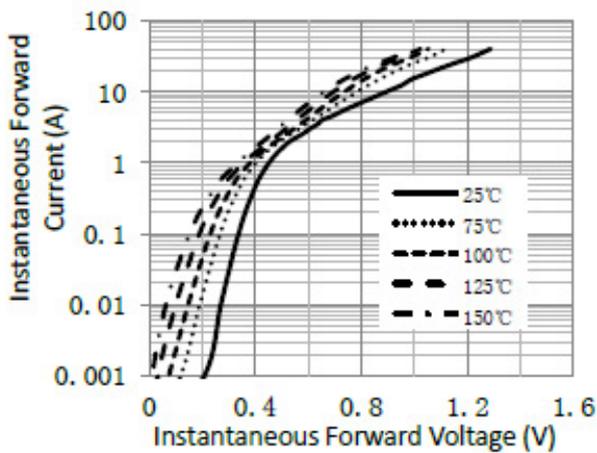


Figure 3. Typical Instantaneous Forward Characteristics

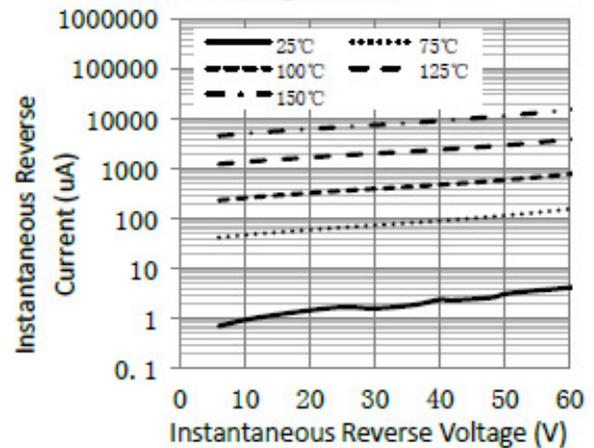


Figure 4. Typical Reverse Characteristics

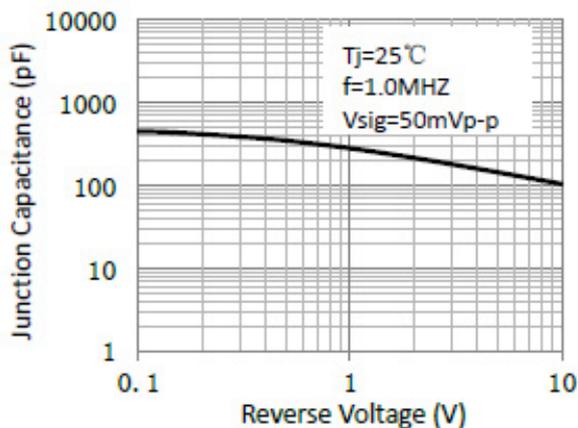


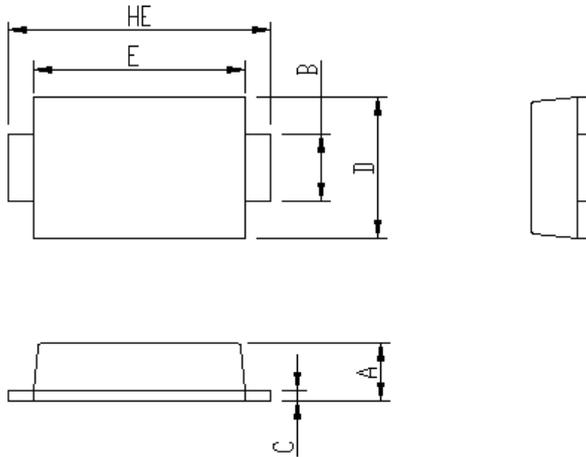
Figure 5. Typical Junction Capacitance

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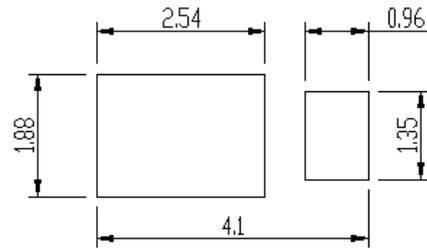
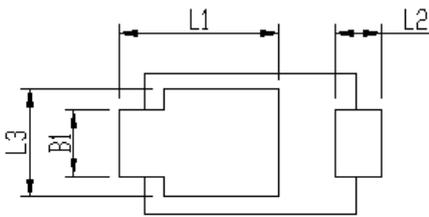
Package Outline Dimensions

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

