

## Features

- Low  $V_F$  Schottky rectifier
- 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 fast switching in RF module, lighting, cell phone, portable device, power supplies and other consumer applications.

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

Parameter	Symbol	GSPS1B5H	GSPS1CH	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 8.3ms Single Half Sine-wave Superimposed on Rated Load	$I_{FSM}$	40		A
Operating Junction and Storage Temperature Range	$T_J,$ $T_{STG}$	-55 to +150		$^\circ\text{C}$

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

Parameter	Test Conditions	Symbol	Value	Unit
Maximum Instantaneous Forward Voltage	$I_F=0.5\text{A}, T_A=25^\circ\text{C}$	$V_F$	0.80	V
	$I_F=1\text{A}, T_A=25^\circ\text{C}$		0.85	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^\circ\text{C}$	$I_R$	2.0	$\mu\text{A}$
	$T_A=125^\circ\text{C}$		200	$\mu\text{A}$
Typical Thermal Resistance <sup>1)</sup>	Junction to Ambient	$R_{\theta JA}$	110	$^\circ\text{C}/\text{W}$
	Junction to Case	$R_{\theta JC}$	25	
	Junction to Lead	$R_{\theta JL}$	15	

Note: 1) The thermal resistance from junction to ambient, case or lead, mounted on FR-4 P.C.B

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

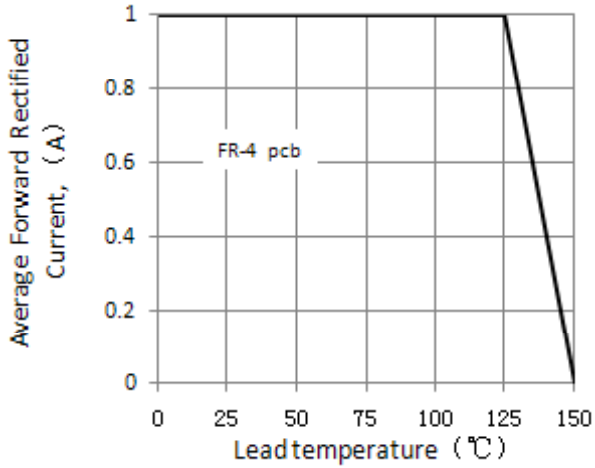


Figure 1. Forward Current Derating Curve

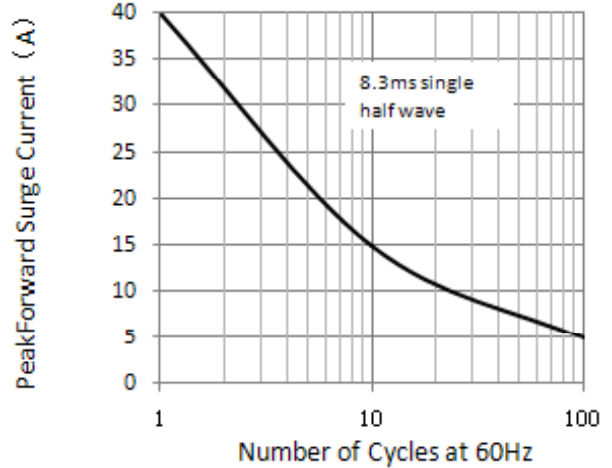


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

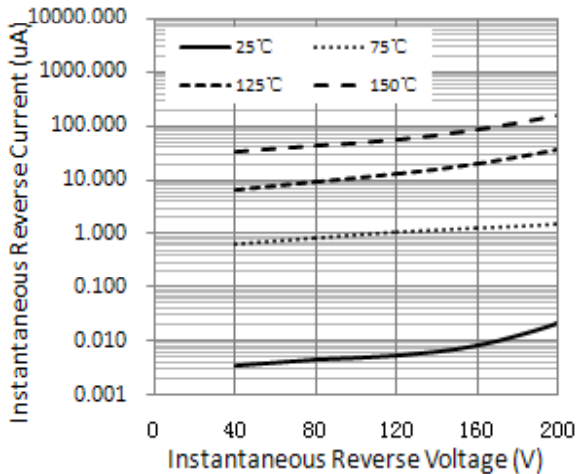


Figure 3. Typical Instantaneous Reverse Characteristics

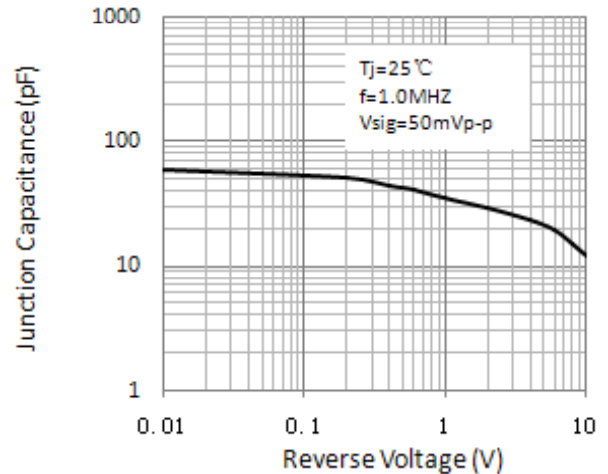


Figure 4. Typical Junction Capacitance

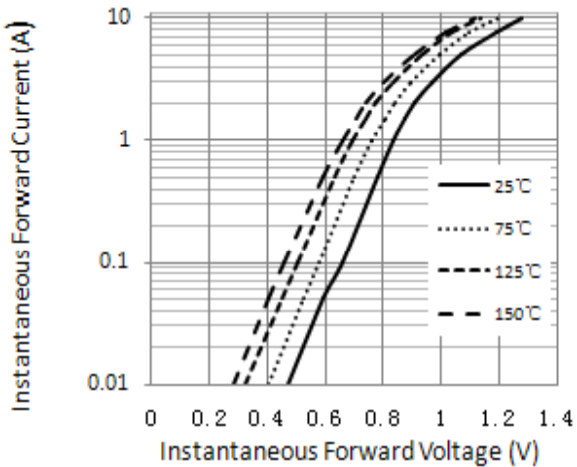
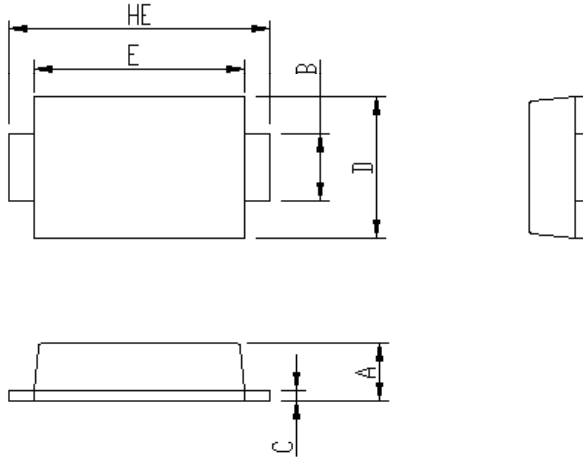


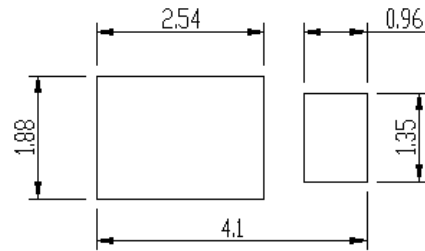
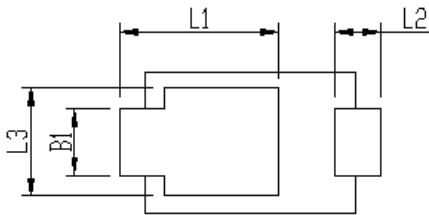
Figure 5. Typical Instantaneous Forward Characteristics

## 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

