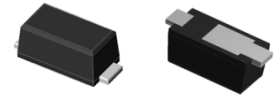


## Features

- Super Low VF schottky barrier 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)



**RoHS**  
COMPLIANT

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

Parameter	Symbol	GSPS32	GSPS33	GSPS34	GSPS345	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	45	V
Maximum RMS voltage	$V_{RMS}$	14	21	28	31.5	V
Maximum DC blocking voltage	$V_{DC}$	20	30	40	45	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( $t < 8.3\text{ms}$ )	$I^2t$	42				$\text{A}^2\text{sec}$
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	Value	Unit
Minimum Breakdown voltage	$T_A=25^\circ\text{C}, I_R=1\text{mA}$	$V_{BR}$	45	V
Maximum instantaneous forward voltage	$I_F=3\text{A}, T_A=25^\circ\text{C}$	$V_F$	0.51	
	$I_F=3\text{A}, T_A=125^\circ\text{C}$		0.45	
Maximum DC reverse current at rated DC blocking voltage	$T_A=25^\circ\text{C}$	$I_R$	50	$\mu\text{A}$
	$T_A=125^\circ\text{C}$		10	mA
Typical junction capacitance	4.0 V, 1 MHz	$C_J$	229	pF
Typical thermal resistance	junction to ambient	$R_{\theta JA}^{1)}$	60	$^\circ\text{C}/\text{W}$
	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

## Typical Electrical Characteristic Curves (T<sub>A</sub> = 25°C unless otherwise noted)

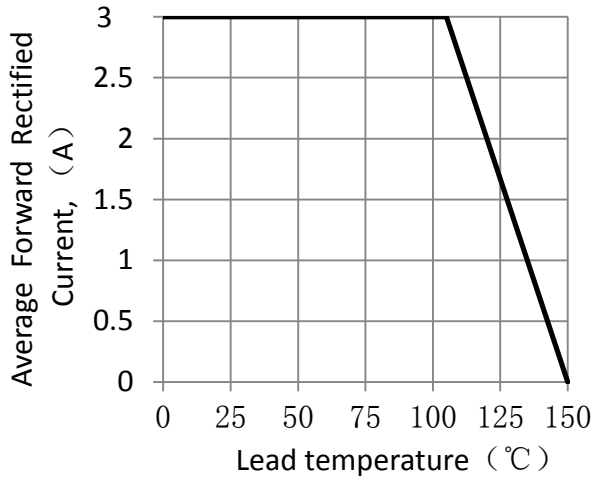


Figure 1. Forward Current Derating Curve

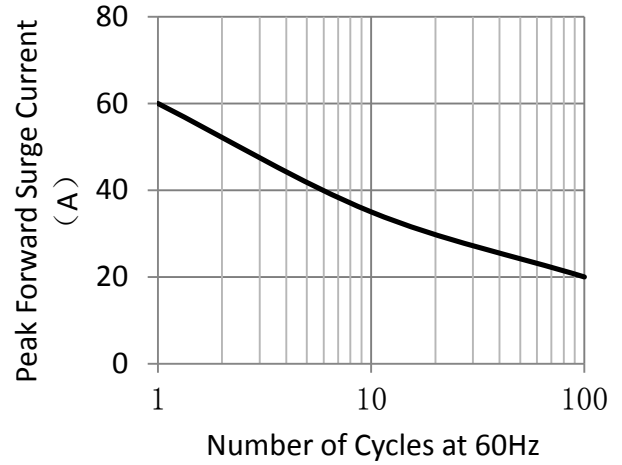


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

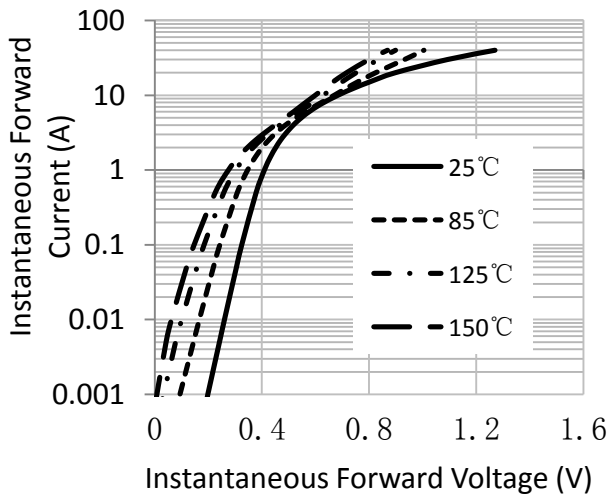


Figure 3. Typical Instantaneous Forward Characteristics

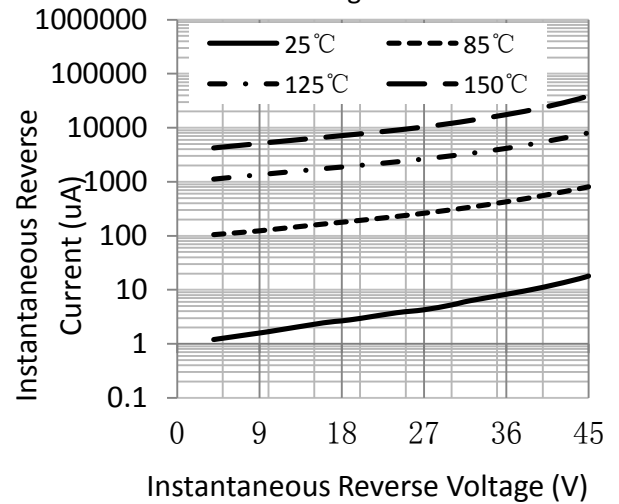


Figure 4. Typical Reverse Characteristics

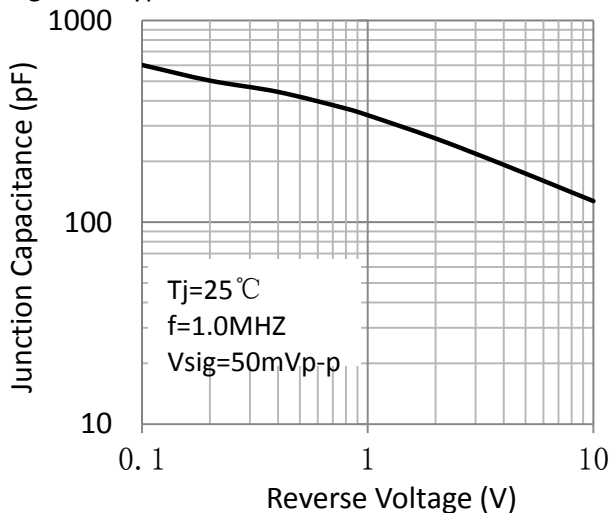


Figure 5. Typical Junction Capacitance

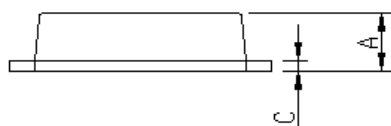
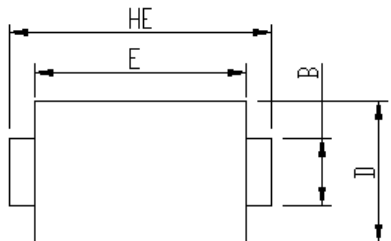
# GSPS32 thru GSPS345

Surface Mount Schottky Rectifier  
 Reverse Voltage 20-45V Forward Current 3.0A

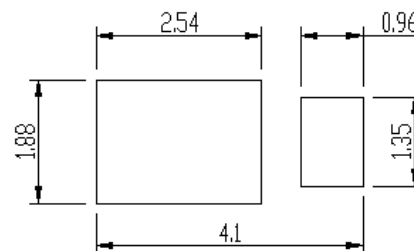
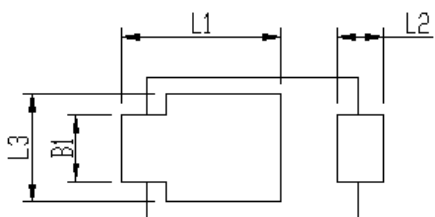
## Package Outline Dimensions

Package: 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
13"	10K	20K	180K

### Tape & Reel Specification

