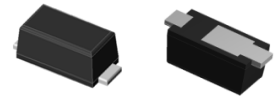


## Features

- Heatsink structure
- Low profile, typical thickness 0.8mm
- Low forward voltage drop
- Super Low VF Schottky barrier diodes
- Moisture sensitivity: level 1, per J-STD-020
- 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	GPL32	GPL33	GPL34	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	V
Maximum RMS voltage	$V_{RMS}$	14	21	28	V
Maximum DC blocking voltage	$V_{DC}$	20	30	40	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	$I_{FSM}$	80			A
Rating for fusing ( $t < 8.3\text{ms}$ )	$I^2t$	26.7			$\text{A}^2\text{sec}$
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	GPL32	GPL33	GPL34	Unit
Minimum breakdown voltage	$T_A=25^\circ\text{C}$ , $I_R=1\text{mA}$	$V_{BR}$	40			V
Maximum instantaneous forward voltage	$I_F=1\text{A}$ , $T_A=25^\circ\text{C}$	$V_F$	0.4 (typ.:0.36)			
	$I_F=2\text{A}$ , $T_A=25^\circ\text{C}$		- (typ.:0.40)			
	$I_F=3\text{A}$ , $T_A=25^\circ\text{C}$		0.45 (typ.:0.42)			
	$I_F=3\text{A}$ , $T_A=125^\circ\text{C}$		0.38			
Maximum DC reverse current at rated DC blocking voltage	$T_A=25^\circ\text{C}$	$I_R$	150			$\mu\text{A}$
	$T_A=125^\circ\text{C}$		30			$\text{mA}$
Typical junction capacitance	4.0 V, 1 MHz	$C_J$	210			$\text{pF}$
Typical thermal resistance <sup>1)</sup>	junction to ambient	$R_{\theta JA}$ <sup>1)</sup>	60			$^\circ\text{C/W}$
	junction to lead	$R_{\theta JL}$ <sup>1)</sup>	6			
	junction to case	$R_{\theta JC}$ <sup>2)</sup>	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

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

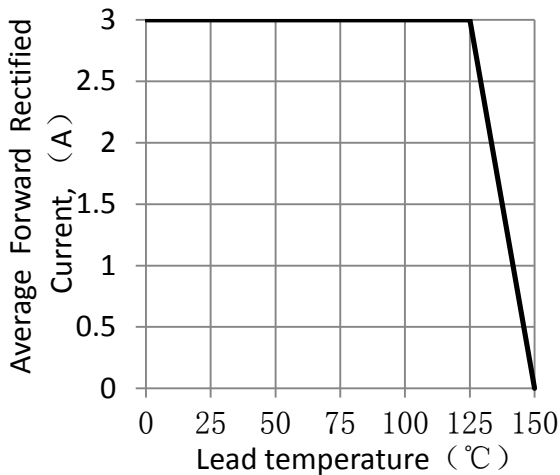


Figure 1. Forward Current Derating Curve

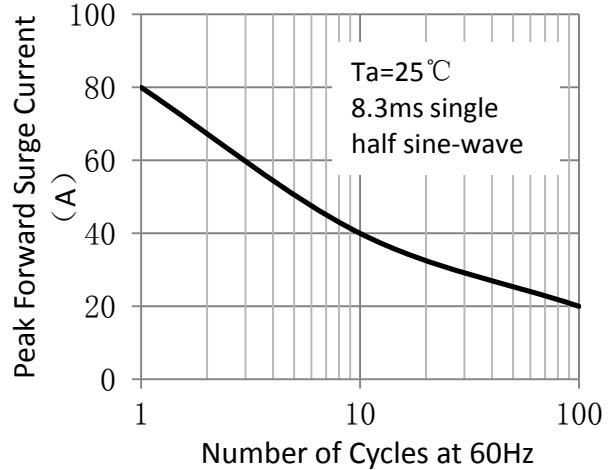


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

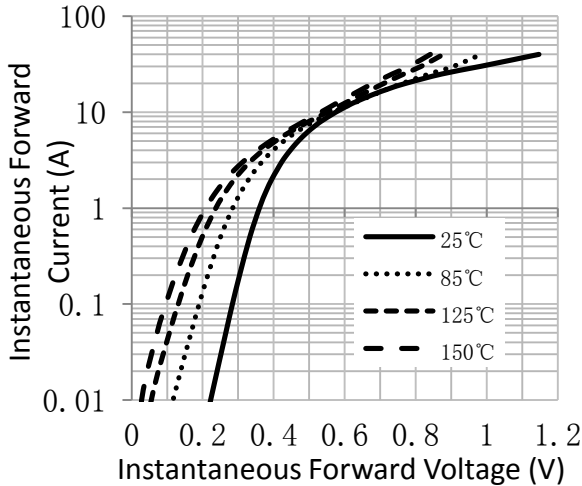


Figure 3. Typical Instantaneous Forward Characteristics

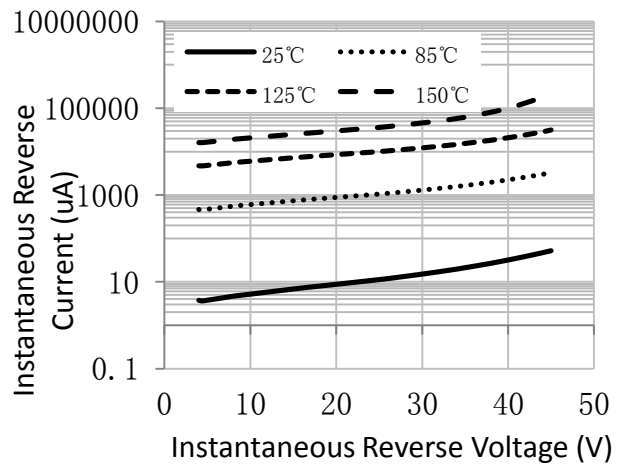


Figure 4. Typical Reverse Characteristics

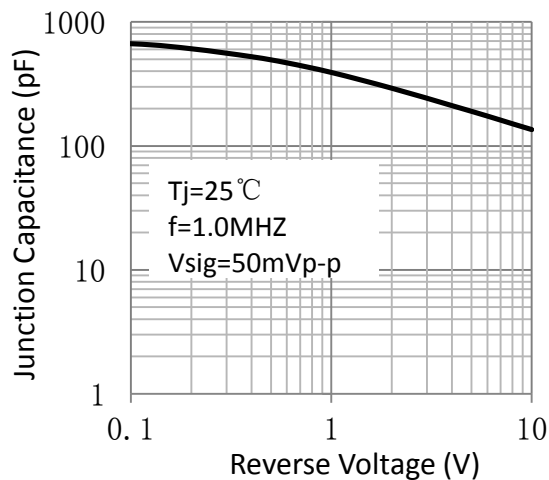
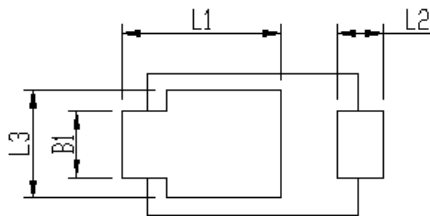
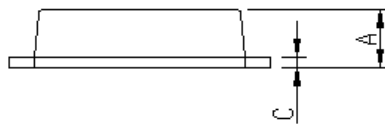
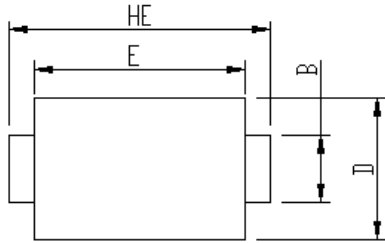


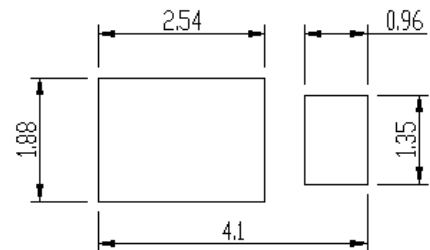
Figure 5. Typical Junction Capacitance

## Package Outline Dimensions



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

