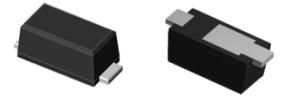


## Features

- Heatsink structure
- Low profile, typical thickness 0.8mm
- Low leakage current
- Super Low VF Schottky barrier diodes
- Moisture sensitivity: level 1, per J-STD-020
- High temperature soldering guaranteed: 260°C/10 seconds



**RoHS**  
COMPLIANT



Package: iSGA  
(SOD-123HS)

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

Parameter	Symbol	PSL14	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	40	V
Maximum RMS voltage	$V_{RMS}$	28	V
Maximum DC blocking voltage	$V_{DC}$	40	V
Maximum average forward rectified current	$I_{F(AV)}$	1.0	A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	$I_{FSM}$	40	A
Rating for fusing ( $t < 8.3\text{ms}$ )	$I^2t$	6.7	$\text{A}^2\text{sec}$
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	Typ.	Max	Unit
Minimum breakdown voltage	$T_A=25^\circ\text{C}, I_R=1\text{mA}$	$V_{BR}$	40		Volts
Instantaneous forward voltage	1A, $T_A=25^\circ\text{C}$	$V_F$	0.42	0.45	
	1A, $T_A=125^\circ\text{C}$		0.34	0.40	
Reverse current at rated DC blocking voltage	$T_A=25^\circ\text{C}$	$I_R$	22.0	200.0	$\mu\text{A}$
	$T_A=125^\circ\text{C}$		10.00	20	mA
Typical junction capacitance	4.0 V, 1 MHz	$C_J$	55		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

**Typical Electrical Characteristic Curves**

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

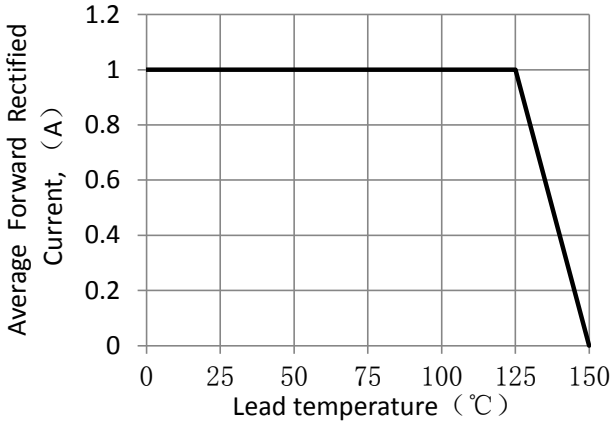


Figure 1. Forward Current Derating Curve

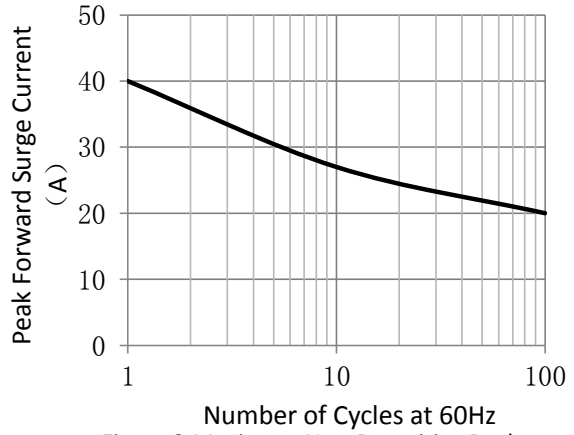


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

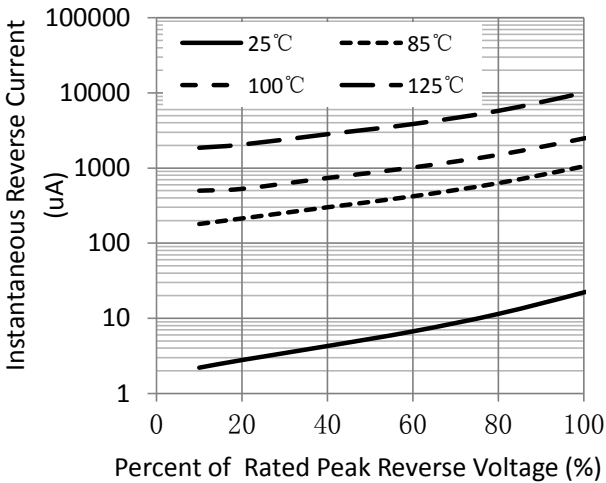


Figure 3. Typical Reverse Characteristics

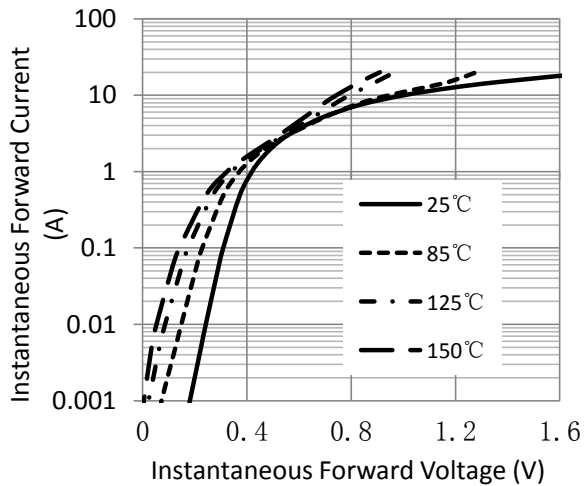


Figure 4. Typical Instantaneous Forward Characteristics

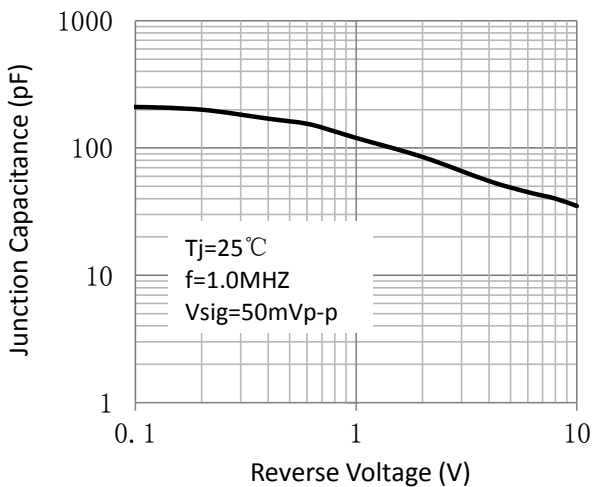
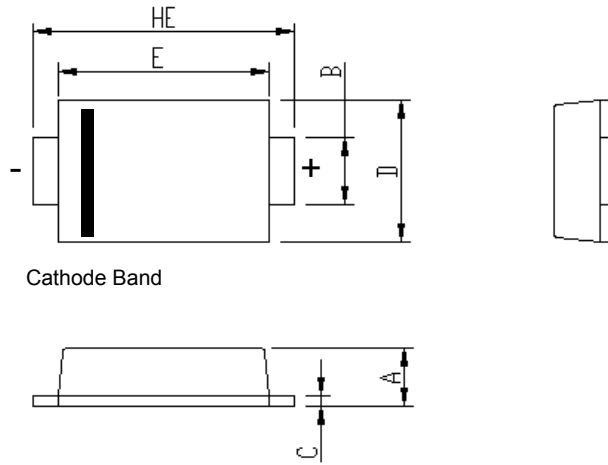


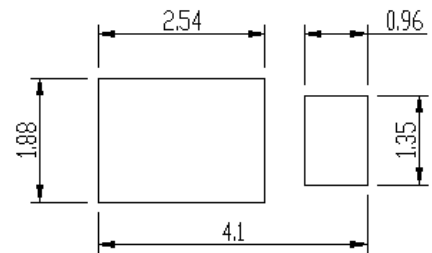
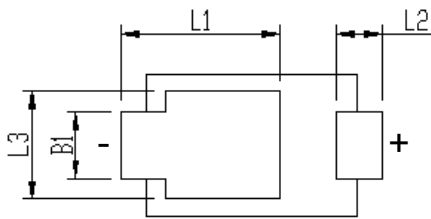
Figure 5. Typical Junction Capacitance

## 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

