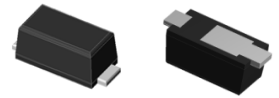


Features

- 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



Package: iSGA
(SOD-123HS)



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

Parameter	Symbol	GPL14	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	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	$T_A=25^\circ\text{C}, I_R=1\text{mA}$	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	μA
	$T_A=125^\circ\text{C}$		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 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)

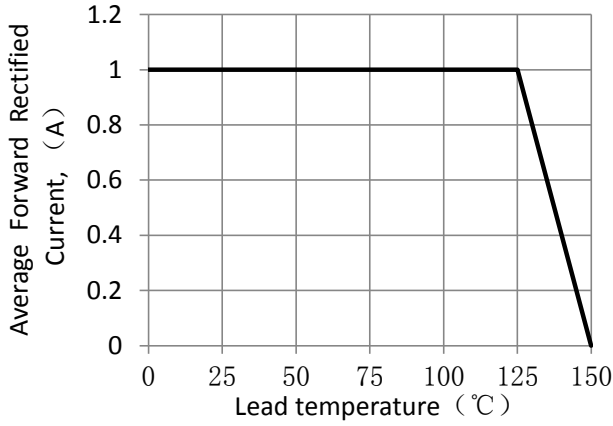


Figure 1. Forward Current Derating Curve

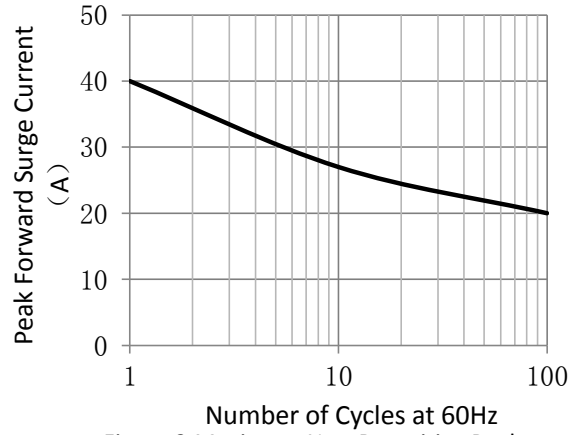


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

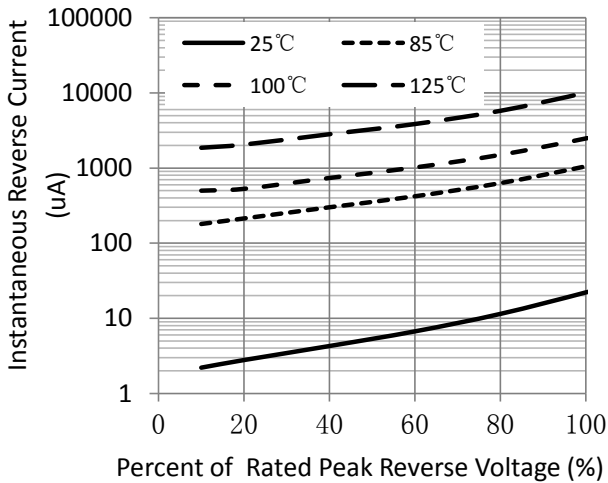


Figure 3. Typical Reverse Characteristics

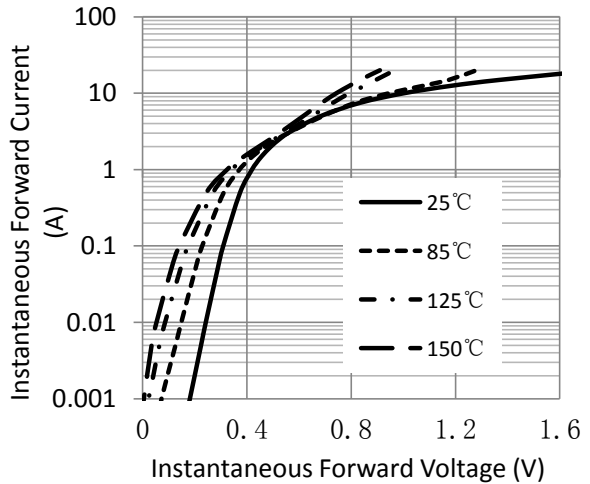


Figure 4. Typical Instantaneous Forward Characteristics

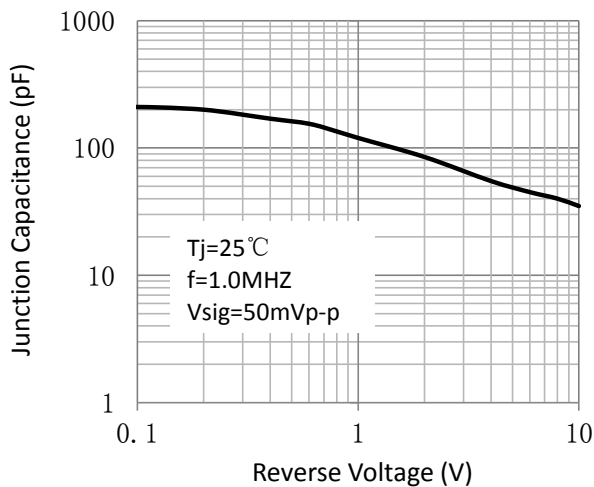
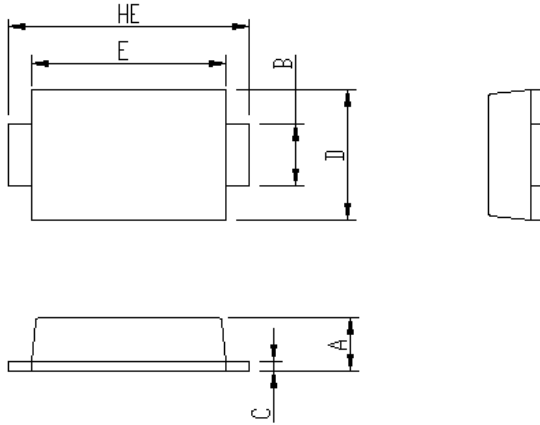


Figure 5. Typical Junction Capacitance

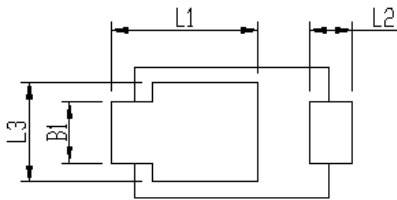
Package Outline Dimensions

Package: iSGA

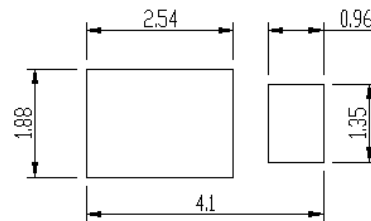
(SOD-123HS)



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

Tape & Reel Specification

