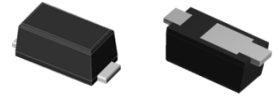


Features

- Heatsink structure
- Low profile, typical thickness 0.8mm
- Low leakage current
- Super low forward voltage
- 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°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	30	V
Maximum RMS Voltage	V _{RMS}	21	V
Maximum DC Blocking Voltage	V _{DC}	30	V
Maximum Average Forward Rectified Current	I _{F(AV)}	1	A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load	I _{FSM}	40	A
Rating for Fusing (t < 8.3ms)	I ² t	6.67	A ² sec
Operating Junction Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Test Conditions	Symbol	Typ.	Max	Unit
Instantaneous Forward Voltage	0.5A, T _A =25°C	V _F	0.35	-	V
	1A, T _A =25°C		0.38	0.42	V
	1A, T _A =125°C		0.27	0.35	V
Reverse Current at Rated DC Blocking Voltage	T _A =25°C	I _R	67	200	uA
	T _A =100°C		5.28	20	mA
Typical Junction Capacitance	4.0V, 1 MHz	C _J	85	-	pF
Typical Thermal Resistance	Junction to Ambient ¹	R _{θJA1}	65	-	°C/W
	Junction to Lead ¹	R _{θJL1}	9	-	
	Junction to Case ²	R _{θJC2}	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)

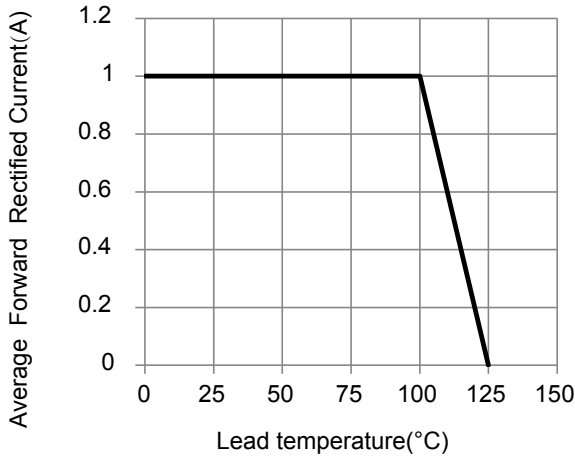


Figure 1. Forward Current Derating Curve

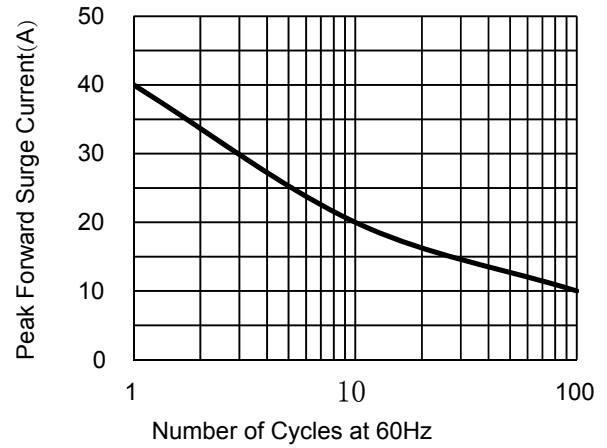


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

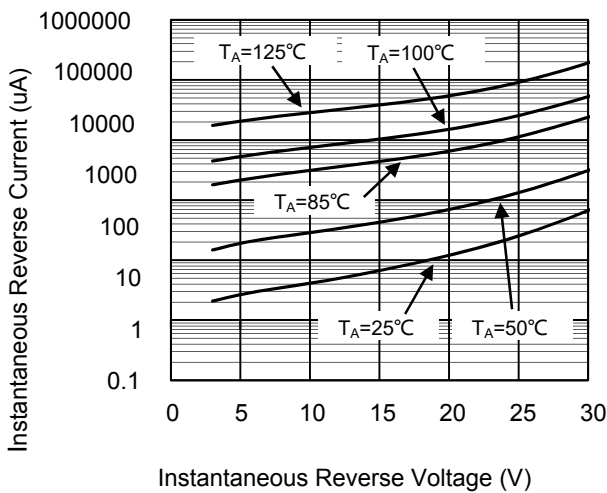


Figure 3. Typical Reverse Characteristics

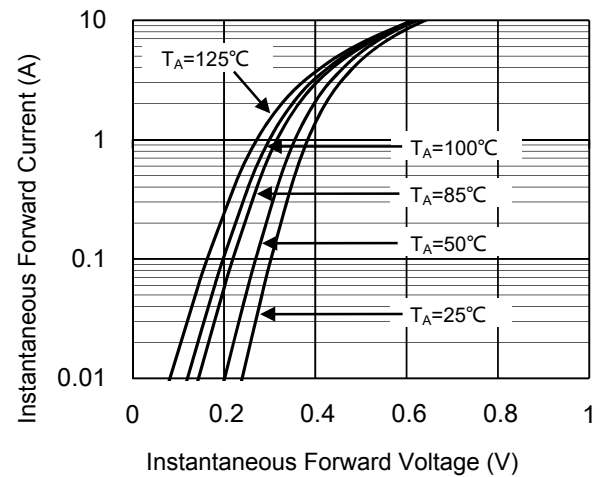


Figure 4. Typical Instantaneous Forward Characteristics

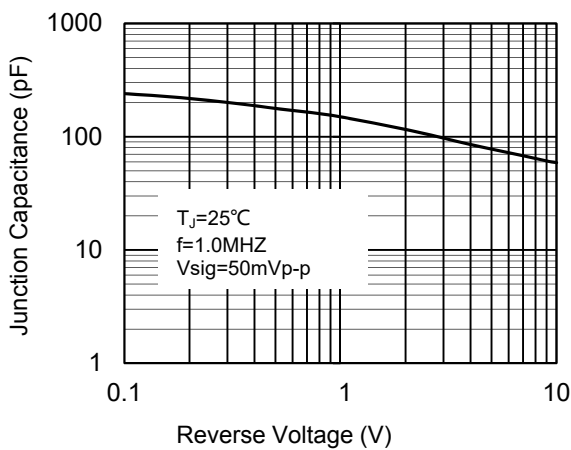
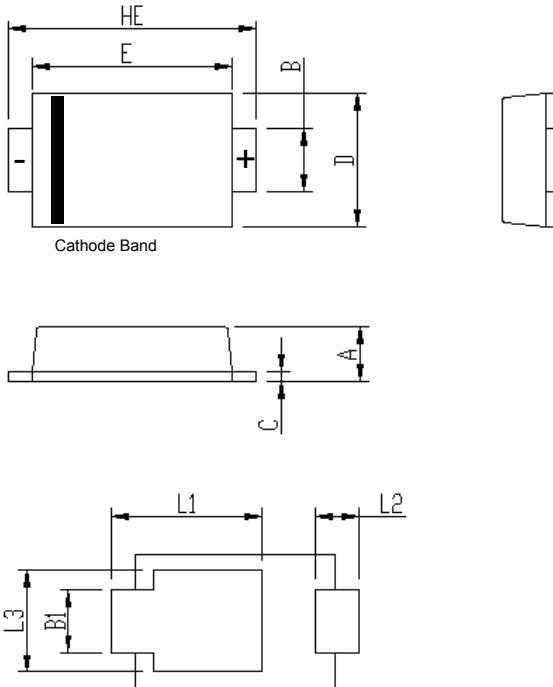


Figure 5. Typical Junction Capacitance

Package Outline Dimensions



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

Recommended Pad Layout

