

## Features

- Low forward voltage drop
- Low profile - typical height of 0.65 mm
- Moisture sensitivity: level 1, per J-STD-020
- High temperature soldering guaranteed: 260°C/10 seconds



Package: iSGP  
(SOD-323HS)



RoHS  
COMPLIANT

## Maximum Ratings (T<sub>A</sub>=25°C unless otherwise noted)

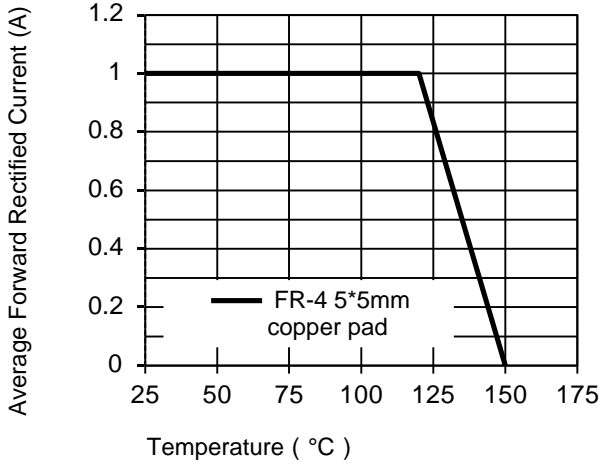
Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	30	V
Maximum RMS Voltage	V <sub>RMS</sub>	21	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	30	V
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	1	A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load	I <sub>FSM</sub>	25	A
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +150	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C

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

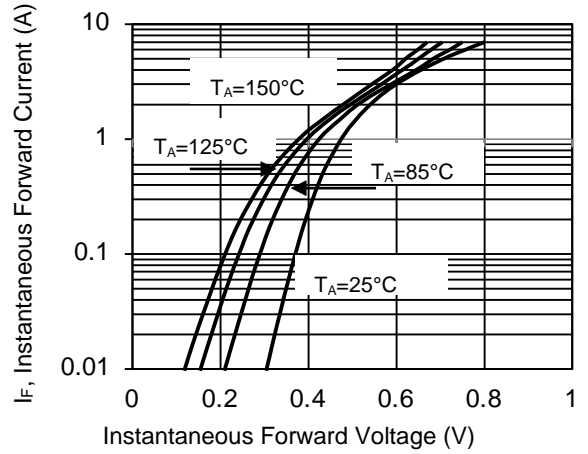
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Instantaneous Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =0.1A, T <sub>A</sub> =25°C	-	0.37	0.40	V
		I <sub>F</sub> =0.2A, T <sub>A</sub> =25°C	-	0.39	0.42	
		I <sub>F</sub> =0.5A, T <sub>A</sub> =25°C	-	0.43	0.46	
		I <sub>F</sub> =0.7A, T <sub>A</sub> =25°C	-	0.45	0.48	
		I <sub>F</sub> =1.0A, T <sub>A</sub> =25°C	-	0.47	0.50	
		I <sub>F</sub> =0.5A, T <sub>A</sub> =125°C	-	0.33	-	
		I <sub>F</sub> =1.0A, T <sub>A</sub> =125°C	-	0.40	0.46	
Instantaneous Reverse Current	I <sub>R</sub>	V <sub>R</sub> =10V, T <sub>A</sub> =25°C	-	0.22	-	uA
		V <sub>R</sub> =20V, T <sub>A</sub> =25°C	-	0.43	20	
		V <sub>R</sub> =30V, T <sub>A</sub> =25°C	-	0.80	20	
		V <sub>R</sub> =40V, T <sub>A</sub> =25°C	-	2	20	
		V <sub>R</sub> =40V, T <sub>A</sub> =125°C	-	1.2	-	
Typical Junction Capacitance	C <sub>J</sub>	4.0V, 1 MHz	54 (Typical)			pF
		10V, 1MHz	36.3(Typical)			
Typical Thermal Resistance <sup>1</sup>	R <sub>θJA</sub>	Junction to Ambient	103			°C/W
	R <sub>θJL</sub>	Junction to Lead	24			

Note1: The thermal resistance from Junction to Ambient or Junction to Lead ,mounted on P.C.B with 5x5mm copper pads, 2 OZ, FR4 PCB with a typical thickness of 1.6mm.

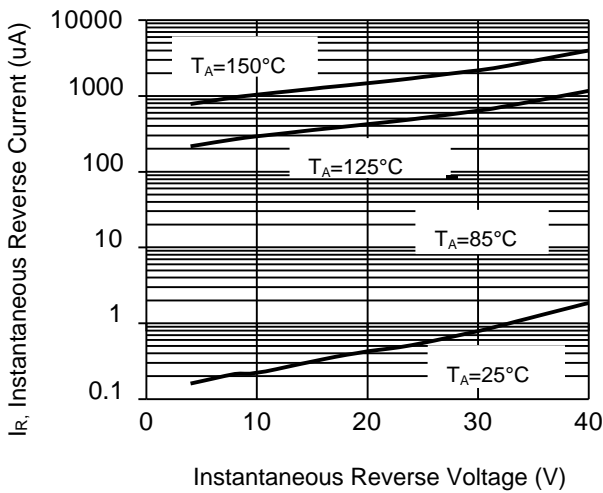
## Ratings and Characteristics Curves ( $T_A = 25^\circ\text{C}$ unless otherwise noted)



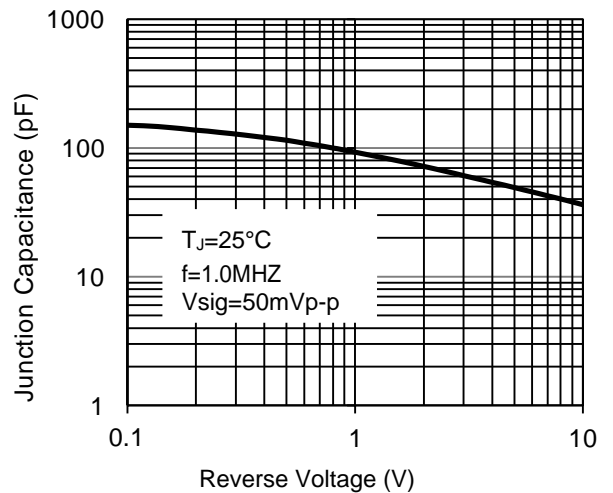
**Figure 1. Forward Current Derating Curve**



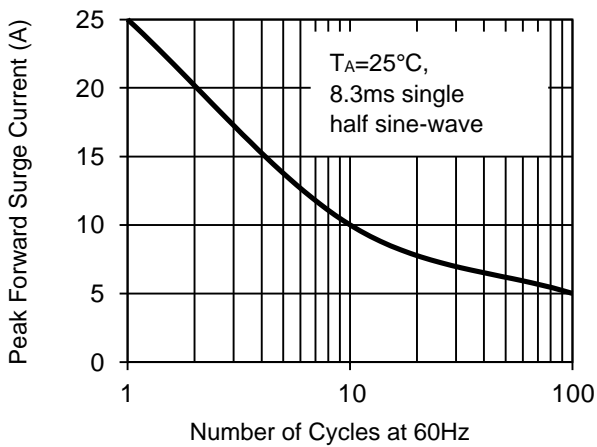
**Figure 2. Typical Instantaneous Forward Characteristics**



**Figure 3. Typical Reverse Characteristics**



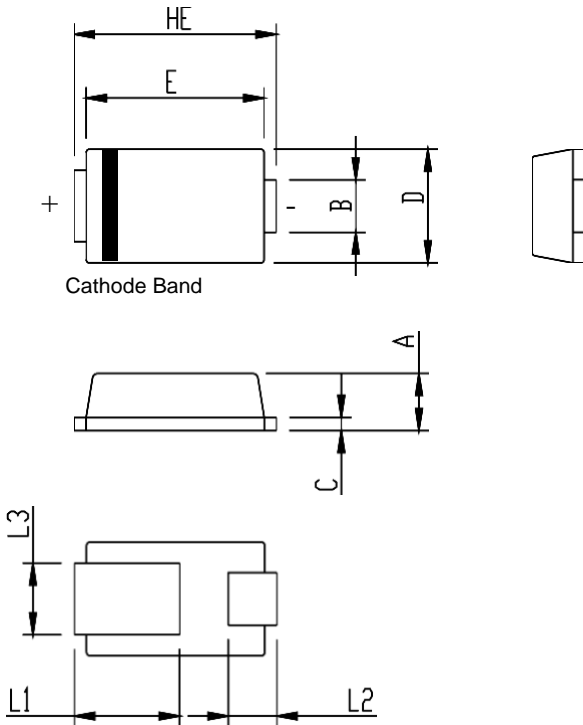
**Figure 4. Typical Junction Capacitance**



**Figure 5. Maximum Non-Repetitive Peak Forward Surge Current**

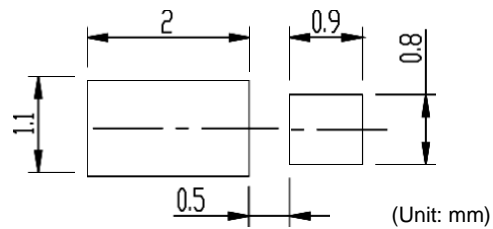
## Package Outline Dimensions

iSGP (SOD-323HS)



Package	Unit: mm	
iSGP	Min	Max
A	0.60	0.73
B	0.55	0.75
C	0.10	0.25
D	1.20	1.40
E	2.10	2.30
HE	2.30	2.70
L1	1.10	1.50
L2	0.40	0.75
L3	0.75	1.00

## Soldering Footprint



## Packing Information

### Packing Quantities

15,000 pcs/Reel, 18 Reels/Box, 8mm Tape, 13" Reel

## Tape & Reel Specification

