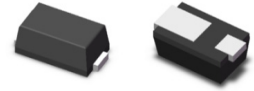


Features

- 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-323HE)



RoHS
 COMPLIANT

Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	GSTP0120S	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	20	V
Maximum RMS Voltage	V _{RMS}	14	V
Maximum DC Blocking Voltage	V _{DC}	20	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}	25	A
Operating Junction Temperature Range	T _J	-55 To +150	°C
Storage Temperature Range	T _{STG}	-55 To +150	°C

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

Parameter	Test Conditions	Symbol	Min.	Typ.	Max.	Unit
Instantaneous Forward Voltage	I _F =0.1A, T _A =25°C	V _F	-	0.37	0.40	V
	I _F =0.2A, T _A =25°C		-	0.39	0.42	
	I _F =0.5A, T _A =25°C		-	0.43	0.46	
	I _F =1.0A, T _A =25°C		-	0.47	0.50	
	I _F =0.5A, T _A =125°C		-	0.33	-	
	I _F =1.0A, T _A =125°C		-	0.40	0.46	
Instantaneous Reverse Current	V _R =10V, T _A =25°C	I _R	-	0.22	-	uA
	V _R =20V, T _A =25°C		-	0.43	20	
	V _R =30V, T _A =25°C		-	0.80	20	
	V _R =40V, T _A =25°C		-	2	20	
	V _R =40V, T _A =125°C		-	1.2	-	
Typical Junction Capacitance	4.0V, 1 MHz	C _J	54			mA
Typical Thermal Resistance ¹	Junction to Ambient	R _{θJA}	103			°C/W
	Junction to Lead	R _{θJL}	24			

Note1: The thermal resistance from Junction to Ambient or Junction to Lead, mounted on P.C.B with 5×5mm copper pads, 2 OZ, FR4 PCB

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

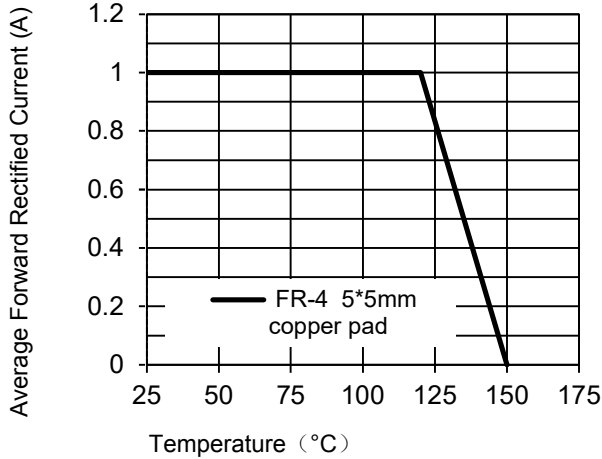


Figure 1. Forward Current Derating Curve

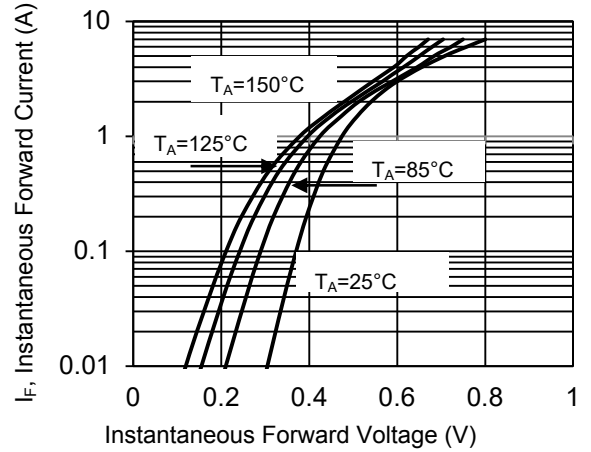


Figure 2. Typical Instantaneous Forward Characteristics

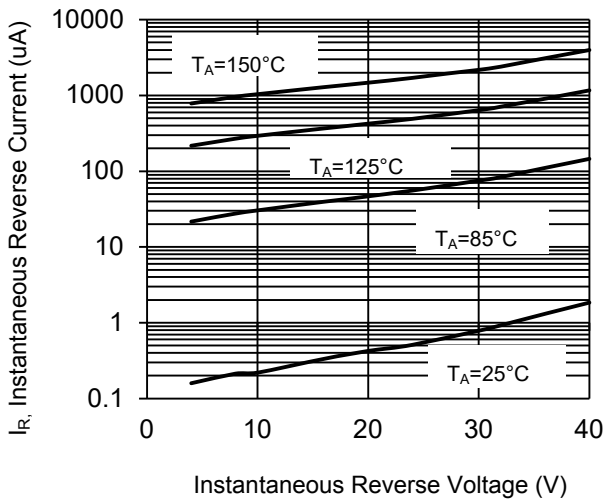


Figure 3. Typical Reverse Characteristics

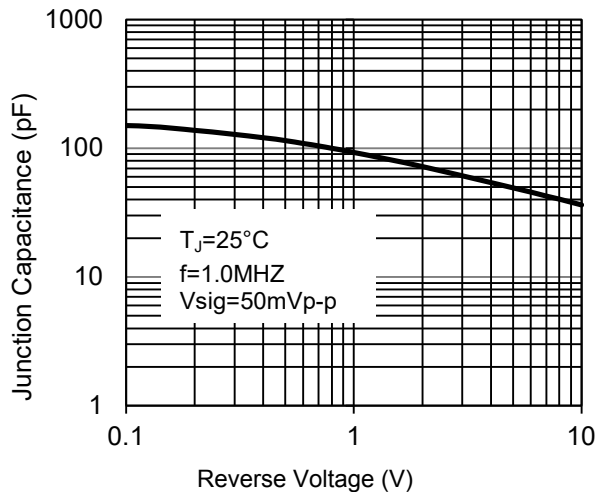


Figure 4. Typical Junction Capacitance

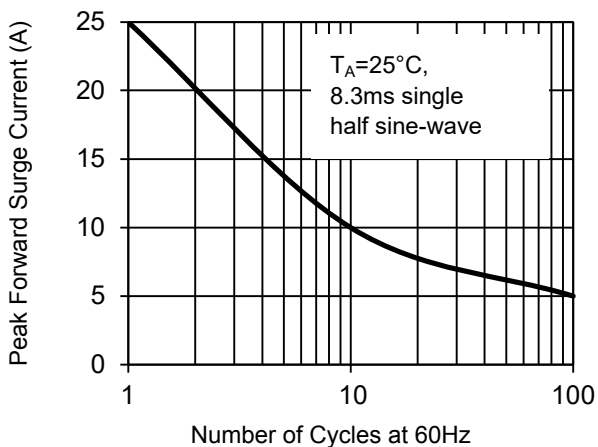
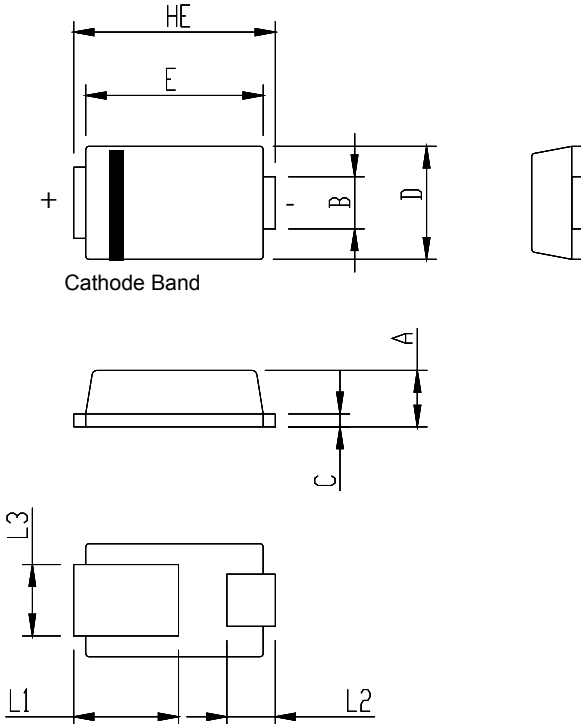


Figure 5. Maximum Non-Repetitive Peak Forward Surge Current

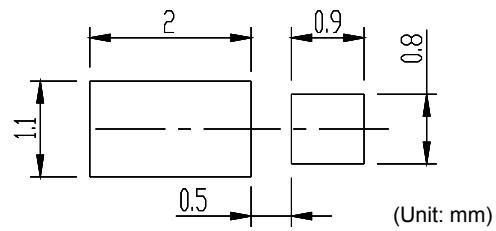
Package Outline Dimensions

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



Tape & Reel Specification

