

GSTP0220S thru GSTP0240S

Surface Mount Schottky Rectifiers
 Reverse Voltage 20 to 40V Forward Current 2A

Features

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



iSGP
(SOD-323HS)



RoHS
COMPLIANT

Applications

For use of fast switching in RF module, lighting, cellular phone, portable device, power supplies and other consumer applications.

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

Parameter	Symbol	GSTP0220S	GSTP0230S	GSTP0240S	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	20	30	40	V
Maximum RMS Voltage	V _{RMS}	14	21	28	V
Maximum DC Blocking Voltage	V _{DC}	20	30	40	V
Maximum Average Forward Rectified Current	I _{F(AV)}	2.0			A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	30			A
Operating Junction and Storage Temperature Range	T _J , T _{STG}	-55 to +150			°C

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

Parameter	Test Conditions	Symbol	GSTP0220S thru GSTP0240S	Unit
Maximum Instantaneous Forward Voltage	I _F =2A, T _A =25°C	V _F	0.60	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _A =25°C	I _R	250	uA
Typical Junction Capacitance	4.0V, 1MHz	C _J	54	pF
Typical Thermal Resistance ¹	Junction to Ambient	R _{θJA}	103	°C/W
	Junction to Lead	R _{θJL}	24	

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.

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

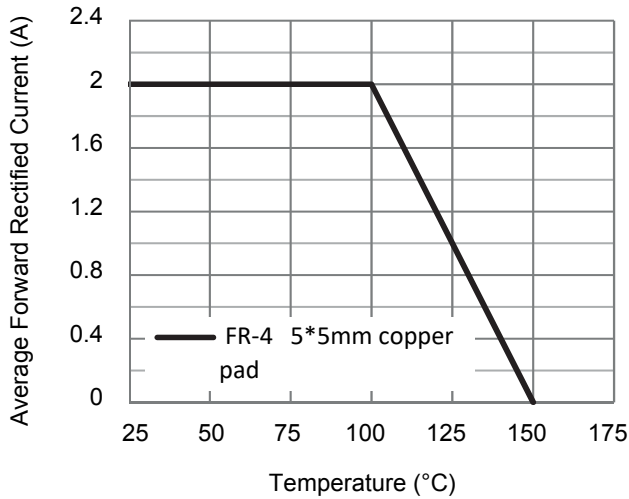


Figure 1. Forward Current Derating Curve

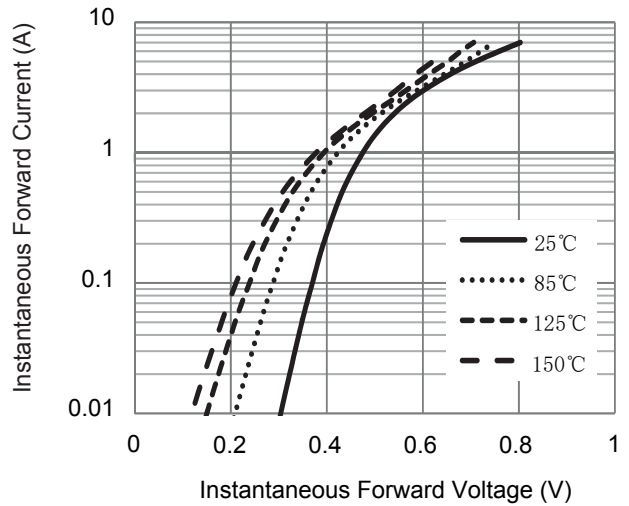


Figure 2. Typical Instantaneous Forward Characteristics

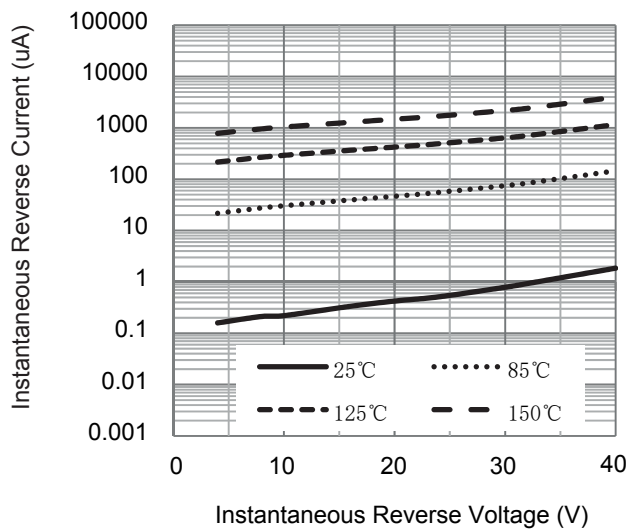


Figure 3. Typical Reverse Characteristics

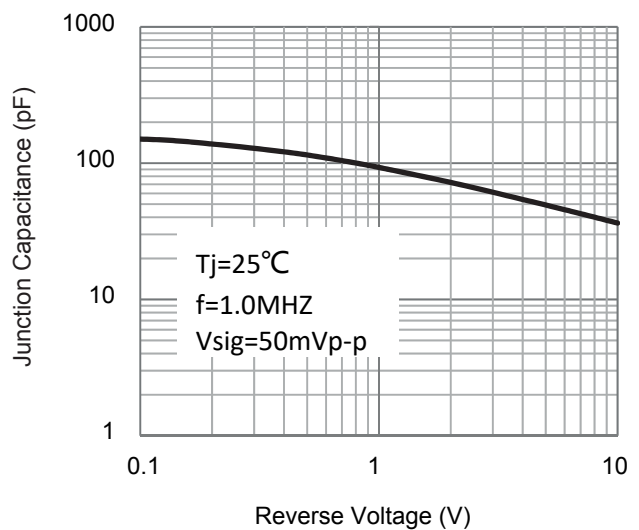


Figure 4. Typical Junction Capacitance

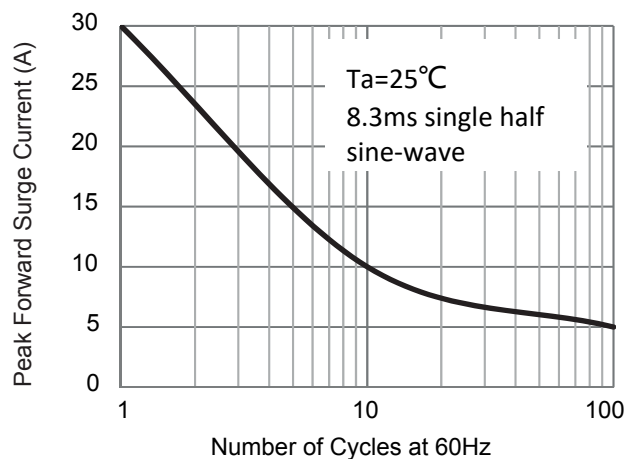
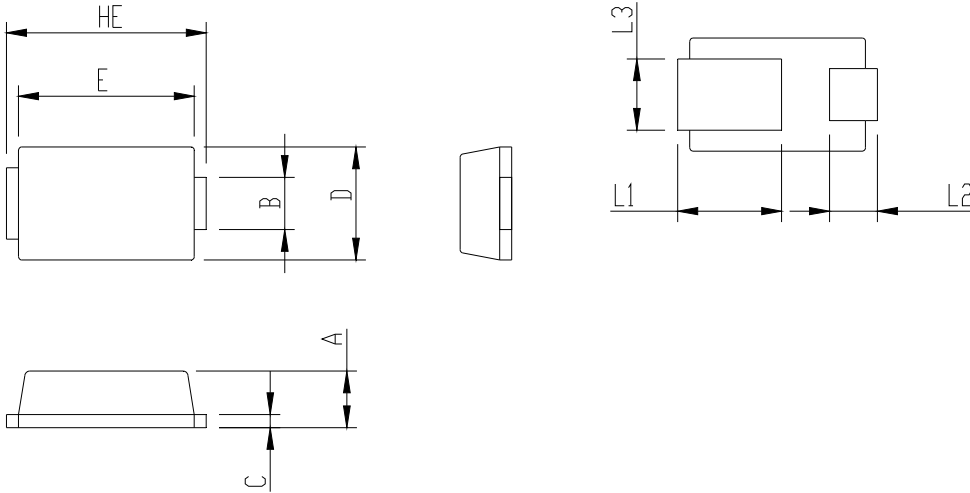


Figure 5. Maximum Non-Repetitive Peak Forward Surge Current

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Package Outline Dimensions iSGP (SOD-323HS)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.60	0.73	0.024	0.029
B	0.55	0.75	0.022	0.030
C	0.10	0.25	0.004	0.010
D	1.20	1.40	0.047	0.055
E	2.10	2.30	0.083	0.091
HE	2.30	2.70	0.091	0.106
L1	1.10	1.50	0.043	0.059
L2	0.40	0.75	0.016	0.030
L3	0.75	1.00	0.030	0.039

Recommended Pad Layout

