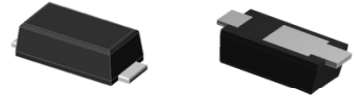


Features

- Low V_F Schottky rectifier
- Low profile, typical thickness 0.8mm
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- Heatsink structure
- High temperature soldering guaranteed: 260°C/10 seconds



Package: iSGA
(SOD-123HS)



RoHS
COMPLIANT

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

| Parameter | Symbol | GSPS3100 | Unit |
|--|-------------|-------------|------------------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 100 | V |
| Maximum RMS Voltage | V_{RMS} | 70 | V |
| Maximum DC Blocking Voltage | V_{DC} | 100 | V |
| Maximum Average Forward Rectified Current | $I_{F(AV)}$ | 3.0 | A |
| Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load) | I_{FSM} | 100 | A |
| Rating for Fusing ($t < 8.3\text{ms}$) | I^2t | 42 | 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 | $I_R=1\text{mA}$ | V_{BR} | 100 | | V |
| Instantaneous Forward Voltage | $I_F=3\text{A}, T_A=25^\circ\text{C}$ | V_F | 0.74 | 0.80 | |
| | $I_F=3\text{A}, T_A=125^\circ\text{C}$ | V_F | 0.59 | 0.65 | |
| Instantaneous Reverse Current at rated DC Blocking Voltage | $T_A=25^\circ\text{C}$ | I_R | 0.435 | 5 | μA |
| | $T_A=125^\circ\text{C}$ | | 465 | 1000 | μA |
| Typical Junction Capacitance | 4.0 V, 1 MHz | C_J | 112 | | pF |
| Typical Thermal Resistance | Junction to Ambient | $R_{\theta JA}^{1)}$ | 61 | | $^\circ\text{C/W}$ |
| | Junction to Lead | $R_{\theta JL}^{1)}$ | 7 | | |
| | Junction to Case | $R_{\theta JC}^{2)}$ | 31 | | |

Note:1) The thermal resistance from junction to ambient or lead, mounted on P.C.B with 5x5mm 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

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

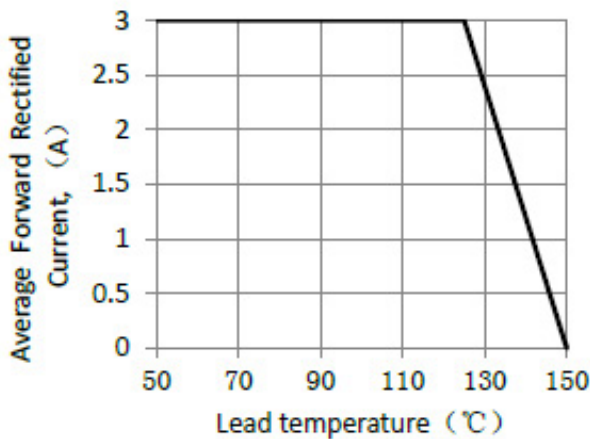


Figure 1. Forward Current Derating Curve

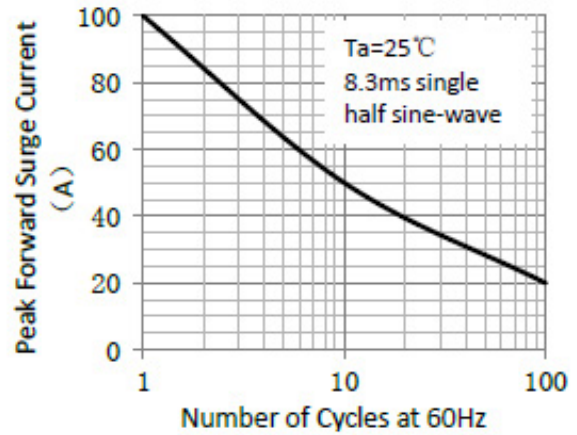


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

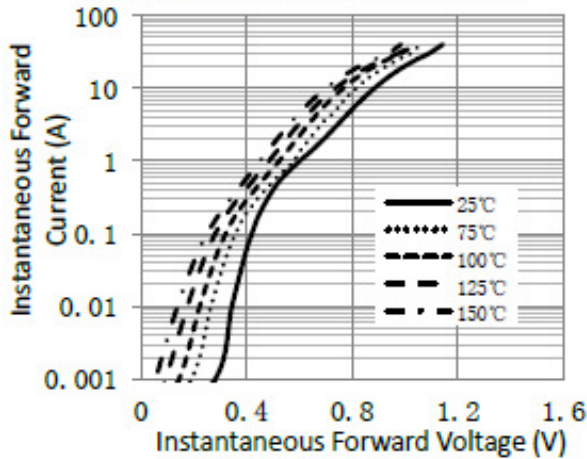


Figure 3. Typical Instantaneous Forward Characteristics

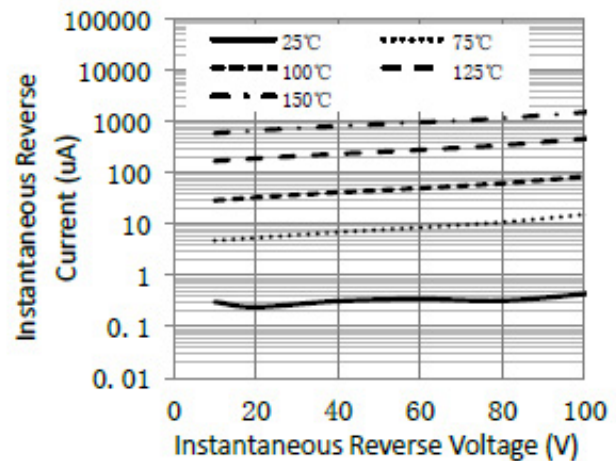


Figure 4. Typical Reverse Characteristics

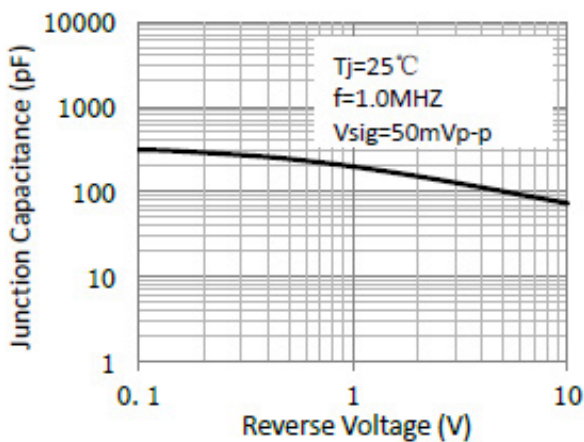
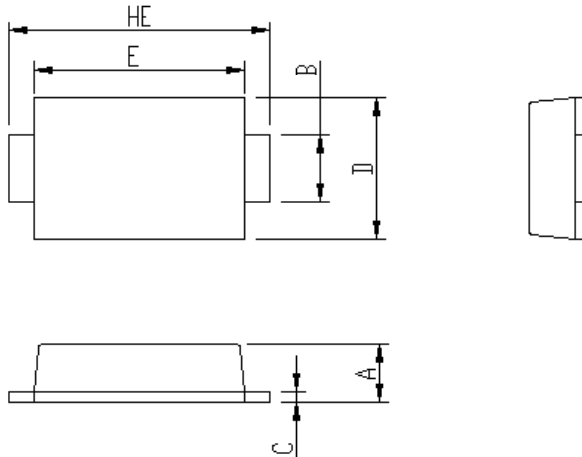


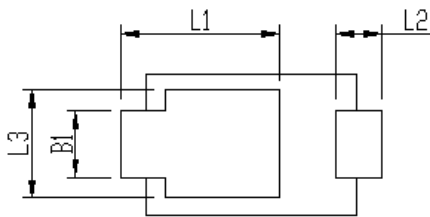
Figure 5. Typical Junction Capacitance

Package Outline Dimensions

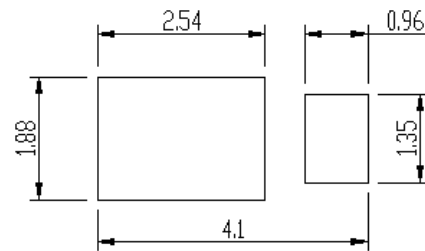
iSGA(SOD-123HS)



| Package | iSGA(SOD-123HS) | |
|---------|-----------------|------|
| 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



Package Information

| Reel size | Quantity/reel | Quantity/inner Box | Quantity/Carton |
|-----------|---------------|--------------------|-----------------|
| 7" | 3K | 30K | 120K |

Tape & Reel Specification

