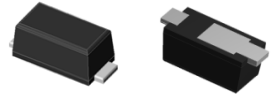


GSPSL32 thru GSPSL34

Surface Mount Schottky Rectifier
 Reverse Voltage 20-40V Forward Current 3A

Features

- Heatsink structure
- Low profile, typical thickness 0.8mm
- Low forward voltage drop
- Super Low VF Schottky barrier diodes
- Moisture sensitivity: level 1, per J-STD-020
- 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 | GSPSL32 | GSPSL33 | GSPSL34 | 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 | $I_{F(AV)}$ | 3.0 | | | A |
| Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load | I_{FSM} | 80 | | | A |
| Rating for fusing($t < 8.3\text{ms}$) | I^2t | 26.7 | | | 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 | GSPSL32 | GSPSL33 | GSPSL34 | Unit |
|---------------------------------------------------------|-------------------------------------------|-------------------------------|------------------|---------|---------|--------------------|
| Minimum breakdown voltage | $T_A=25^\circ\text{C}$, $I_R=1\text{mA}$ | V_{BR} | 40 | | | V |
| Maximum instantaneous forward voltage | $I_F=1\text{A}$, $T_A=25^\circ\text{C}$ | V_F | 0.4 (typ.:0.36) | | | |
| | $I_F=2\text{A}$, $T_A=25^\circ\text{C}$ | | - (typ.:0.40) | | | |
| | $I_F=3\text{A}$, $T_A=25^\circ\text{C}$ | | 0.45 (typ.:0.42) | | | |
| | $I_F=3\text{A}$, $T_A=125^\circ\text{C}$ | | 0.38 | | | |
| Maximum DC reverse current at rated DC blocking voltage | $T_A=25^\circ\text{C}$ | I_R | 150 | | | μA |
| | $T_A=125^\circ\text{C}$ | | 30 | | | mA |
| Typical junction capacitance | 4.0 V, 1 MHz | C_J | 210 | | | pF |
| Typical thermal resistance ¹⁾ | junction to ambient | $R_{\theta JA}$ ¹⁾ | 60 | | | $^\circ\text{C/W}$ |
| | junction to lead | $R_{\theta JL}$ ¹⁾ | 6 | | | |
| | junction to case | $R_{\theta JC}$ ²⁾ | 28 | | | |

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)

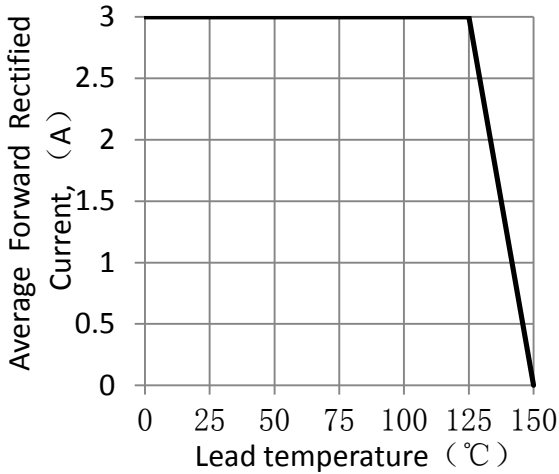


Figure 1. Forward Current Derating Curve

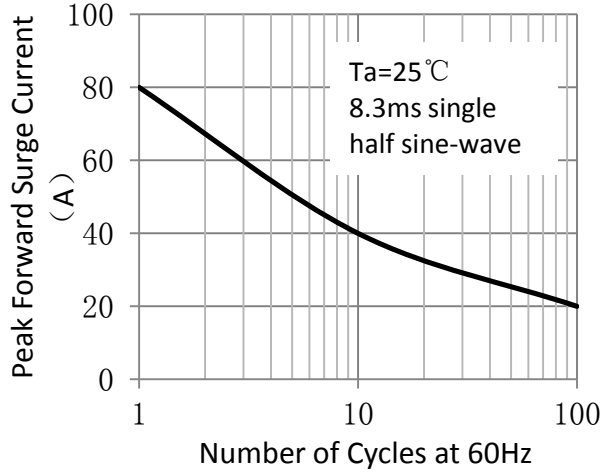


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

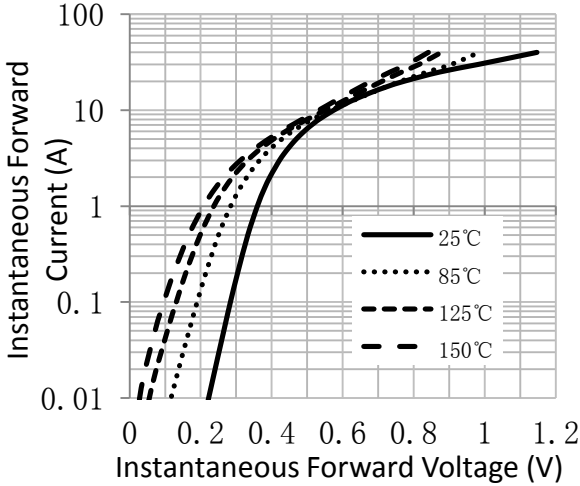


Figure 3. Typical Instantaneous Forward Characteristics

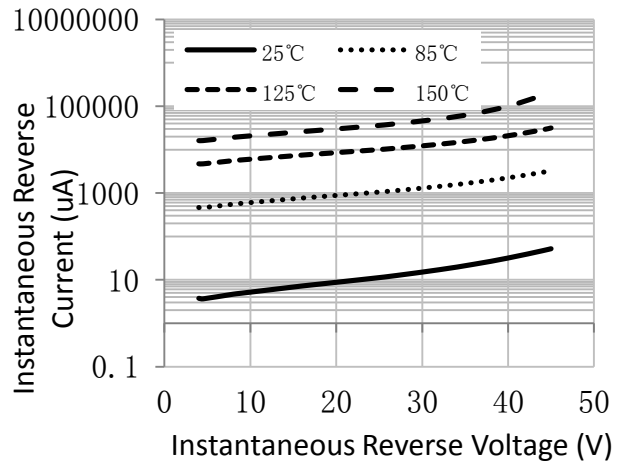


Figure 4. Typical Reverse Characteristics

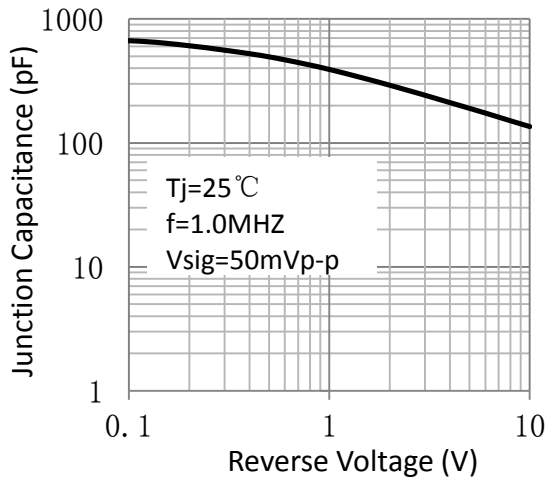
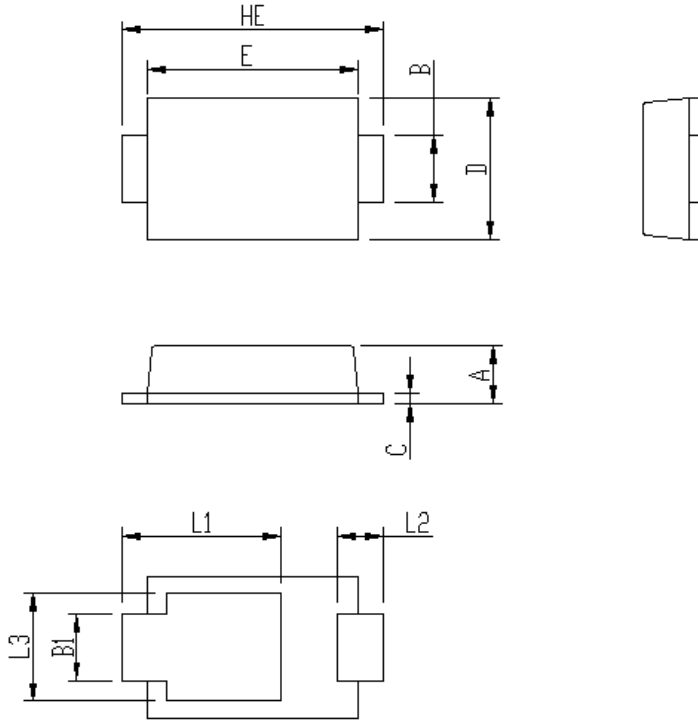


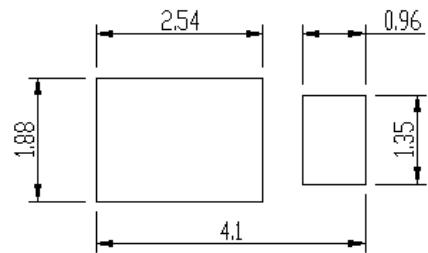
Figure 5. Typical Junction Capacitance

Package Outline Dimensions



| 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 |

Soldering footprint



Packing Information

Packing Quantities

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

Tape & Reel Specification

