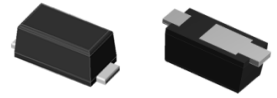


GSP21A thru GSP27A

Surface Mount Glass Passivated Standard Rectifier
 Reverse Voltage 50-1000V Forward Current 2A

Features

- Glass passivated standard rectifiers
- Low profile, typical thickness 0.8mm
- Low forward voltage drop
- 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 | GS P21A | GS P22A | GS P23A | GS P24A | GS P25A | GS P26A | GS P27A | Unit |
|--|----------------|---------------|---------|---------|---------|---------|---------|---------|------------------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current | $I_{F(AV)}$ | 2.0 | | | | | | | A |
| Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load) | I_{FSM} | 60 | | | | | | | A |
| Rating for Fusing ($t < 8.3\text{ms}$) | I^2t | 15 | | | | | | | A^2sec |
| Operating Junction and Storage Temperature Range | T_J, T_{STG} | - 55 to + 150 | | | | | | | $^\circ\text{C}$ |

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

| Parameter | Test Conditions | Symbol | GS P21A | GS P22A | GS P23A | GS P24A | GS P25A | GS P26A | GS P27A | Unit |
|---|---|-----------------|---------|---------|---------|---------|---------|---------|---------|--------------------|
| Minimum Breakdown Voltage | $T_A=25^\circ\text{C}, I_R=100\mu\text{A}$ | V_{BR} | 400 | | | | 600 | 1000 | | V |
| Maximum Instantaneous Forward Voltage | $I_F=2\text{ A}, T_A=25^\circ\text{C}$ | V_F | 1.1 | | | | | | | |
| | $I_F=2\text{ A}, T_A=125^\circ\text{C}$ | | 0.9 | | | | | | | |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | $T_A=25^\circ\text{C}$ | I_R | 5 | | | | | | | μA |
| | $T_A=125^\circ\text{C}$ | | 50 | | | | | | | |
| Typical Reverse Recovery Time | $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$ | t_{rr} | 1.5 | | | | | | | μS |
| Typical Junction Capacitance | 4.0 V, 1 MHz | C_J | 12.4 | | | | | | | pF |
| Typical Thermal Resistance ¹⁾ | Juntion to Ambient | $R_{\theta JA}$ | 60 | | | | | | | $^\circ\text{C/W}$ |
| | Juntion to Lead | $R_{\theta JL}$ | 10 | | | | | | | |

Note:1), The thermal resistance from junction to ambient, case or lead, mounted on FR-4 P.C.B

Typical Electrical Characteristic Curves

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

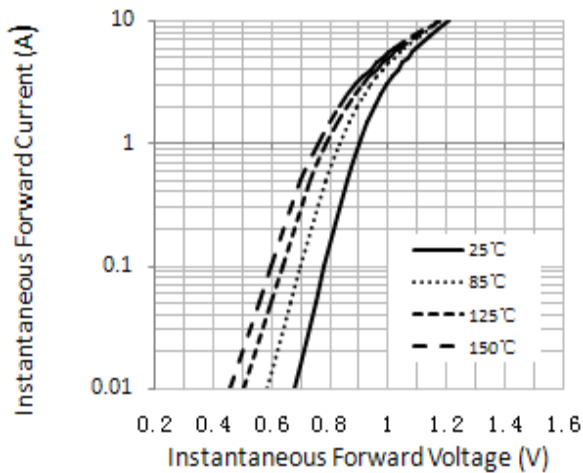


Figure 1. Forward Current Derating Curve

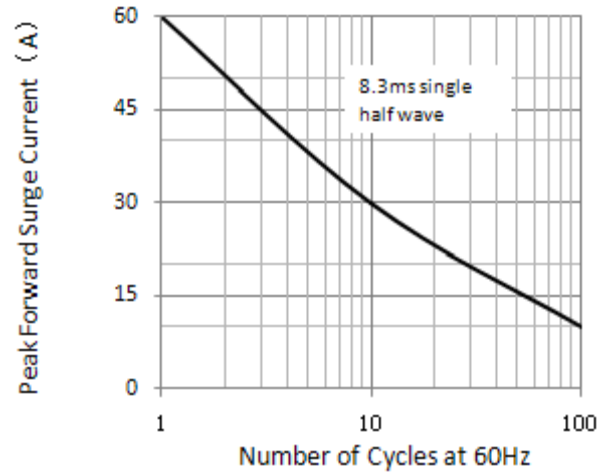


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

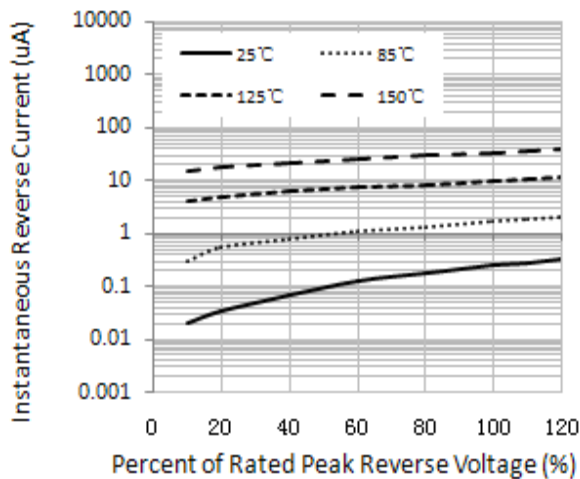


Figure 3. Typical Reverse Characteristics

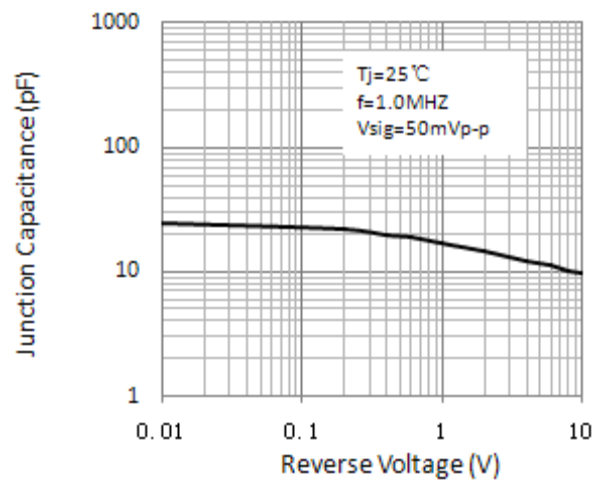


Figure 4. Typical Junction Capacitance

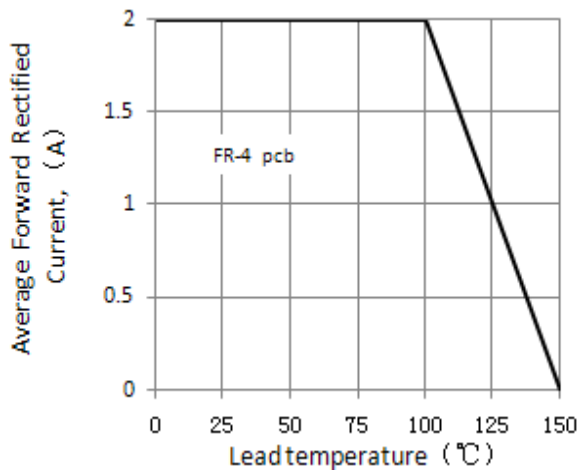
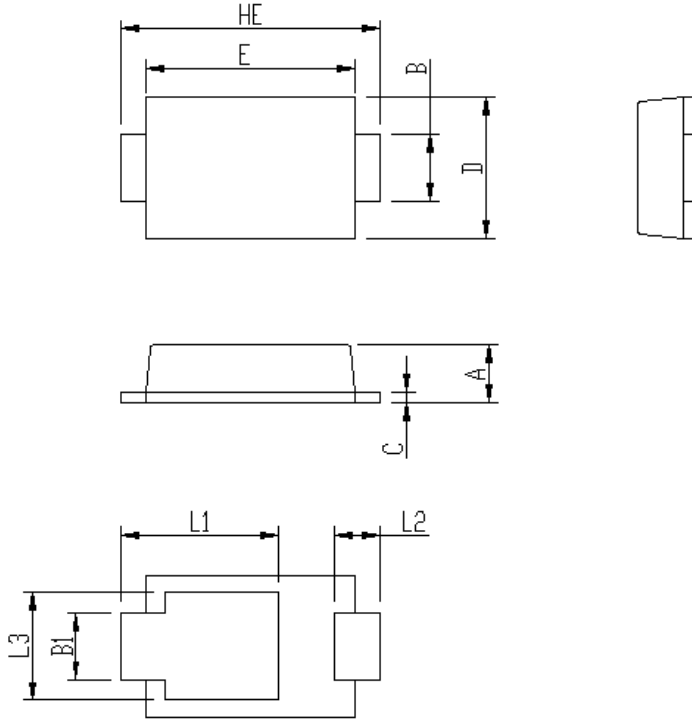


Figure 5. Typical Instantaneous Forward Characteristics

GSP21A thru GSP27A

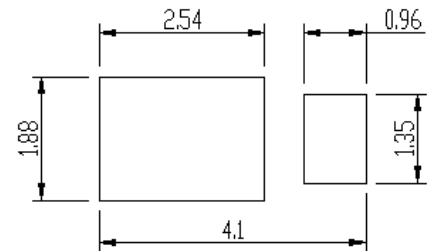
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 Reverse Voltage 50-1000V Forward Current 2A

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

