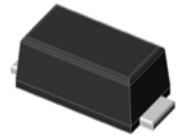


GSGP1R thru GSGP7R

Surface Mount Glass Passivated Fast Recovery Rectifier
 Reverse Voltage 50-1000V Forward Current 1A

Features

- Low forward voltage drop
- Low leakage current
- Glass passivated Fast Recovery rectifiers
- Low profile - typical height of 1.0 mm
- Moisture sensitivity: level 1, per J-STD-020
- High temperature soldering guaranteed: 260°C/10 seconds
- Halogen-free according to IEC 61249-2-21 definition



Package: eSGP
(SOD-323F)



RoHS
COMPLIANT

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

| Parameter | Symbol | GSGP 1R | GSGP 2R | GSGP 3R | GSGP 4R | GSGP 5R | GSGP 6R | GSGP 7R | 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)} | 1.0 | | | | | | | A |
| Peak Forward Surge Current 8.3 ms Single Half Sin-wave Superimposed on Rated Load | I _{FSM} | 25 | | | | | | | 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 | GSGP 1R | GSGP 2R | GSGP 3R | GSGP 4R | GSGP 5R | GSGP 6R | GSGP 7R | Unit |
|--|---|------------------|----------|---------|---------|---------|---------|---------|---------|-------|
| Maximum Instantaneous Forward Voltage | 1 A | V _F | 1.3 | | | | | | | Volts |
| Maximum DC Reverse Current | T _A =25°C T _A =125°C | I _R | 5 250 | | | | | | | µA |
| Typical Reverse Recovery Time | I _F =0.5A, I _R =1.0A, I _{rr} =0.25A | t _{rr} | 150 | | | | 250 | 500 | | nS |
| Typical Junction Capacitance | 4.0 V, 1 MHz | C _J | 5 | | | | | | | pF |
| Typical thermal Resistance ¹⁾ | junction to mount | R _{θJM} | 60 | | | | | | | °C/W |

Note:1) The thermal resistance from junction to mount,mounted on P.C.B with 5x5mm copper pads,2 OZ,FR4 PCB

Ratings and Characteristics Curves

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

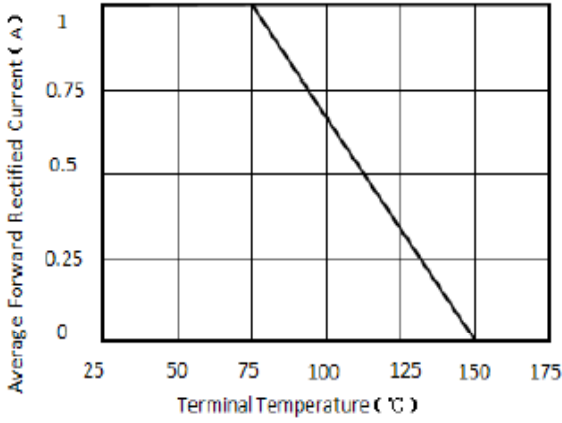


Figure 1. Forward Current Derating Curve

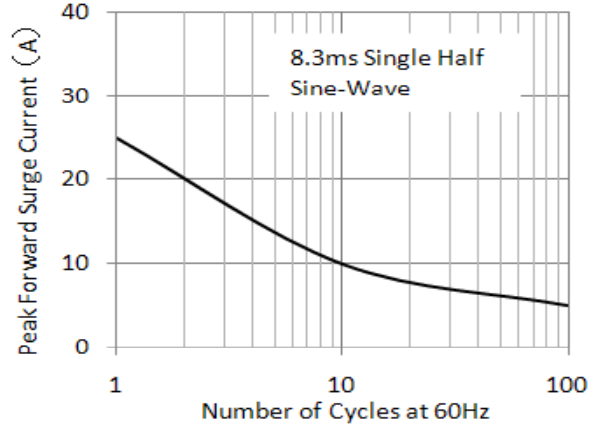


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

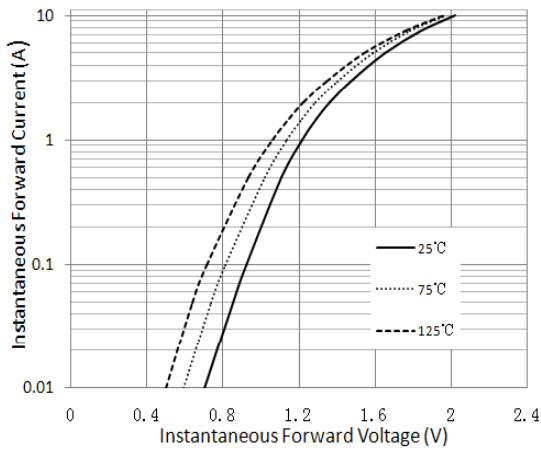


Figure 3. Typical Instantaneous Forward Characteristics

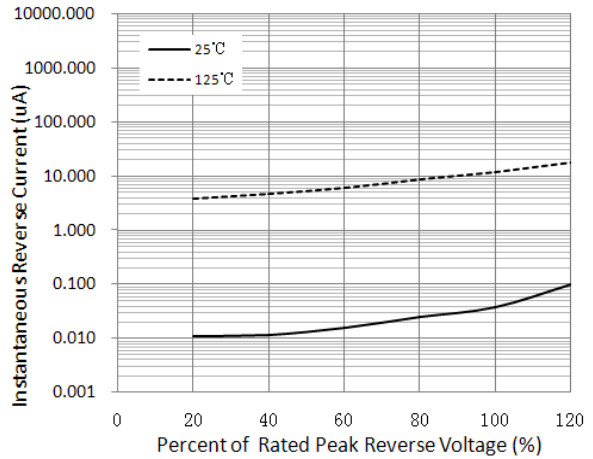


Figure 4. Typical Reverse Characteristics

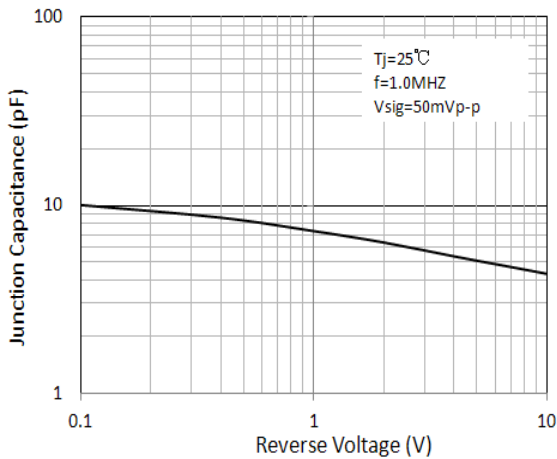


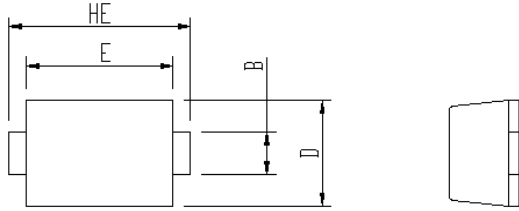
Figure 5. Typical Junction Capacitance

GSGP1R thru GSGP7R

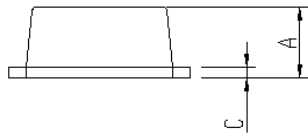
Surface Mount Glass Passivated Fast Recovery Rectifier
 Reverse Voltage 50-1000V Forward Current 1A

Package Outline Dimensions

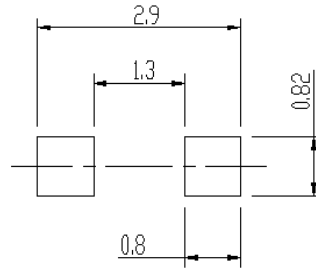
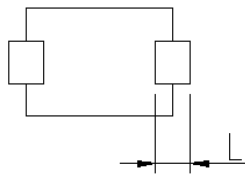
eSGP(SOD-323F)



| Package | Unit:mm | | Unit:inch | |
|---------|---------|------|-----------|-------|
| | MIN | MAX | MIN | MAX |
| A | 0.9 | 1.08 | 0.035 | 0.043 |
| B | 0.5 | 0.7 | 0.020 | 0.028 |
| C | 0.1 | 0.25 | 0.004 | 0.010 |
| D | 1.4 | 1.6 | 0.055 | 0.063 |
| E | 2.0 | 2.2 | 0.079 | 0.087 |
| L | 0.35 | 0.65 | 0.014 | 0.026 |
| HE | 2.4 | 2.8 | 0.094 | 0.110 |



Soldering footprint



Packing Information

Packing quantities:

3000 pcs/Reel, 40 Reels/Box; 8mm Tape, 7" Reel

Tape & Reel Specification

