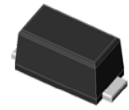


Features

- Low forward voltage drop
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- Solder dip 260 °C, 10 s
- Low profile, typical thickness 1.0mm
- Halogen-free according to IEC 61249-2-21 definition



Package: eSGP
(SOD-323F)



RoHS
COMPLIANT

Applications

For use in fast switching in RF module, lighting, cell phone, portable devices, power supplies and other consumer applications.

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

| Parameter | Symbol | Value | Unit |
|--|--------------------|---------------|------|
| Maximum Repetitive Peak Reverse Voltage | V _{RRM} | 20 | V |
| Maximum RMS Voltage | V _{RMS} | 14 | V |
| Maximum DC Blocking Voltage | V _{DC} | 20 | V |
| Maximum Average Forward Rectified Current | I _{F(AV)} | 1.0 | A |
| Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load) | I _{FSM} | 25 | A |
| Operation Junction Temperature Range | T _J | - 55 to + 150 | °C |
| Storage Temperature Range | T _{STG} | - 55 to + 150 | °C |

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

| Parameter | Test Conditions | Symbol | Value | Unit |
|---|-----------------------|------------------|-------|------|
| Maximum Instantaneous Forward Voltage | I _F =1A | V _F | 0.45 | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | T _A =25°C | I _R | 0.1 | mA |
| | T _A =125°C | | 30 | |
| Typical Junction Capacitance | 4.0 V, 1 MHz | C _J | 60 | pF |
| Typical Thermal Resistance ¹⁾ | Junction to Mount | R _{θJM} | 40 | °C/W |

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

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

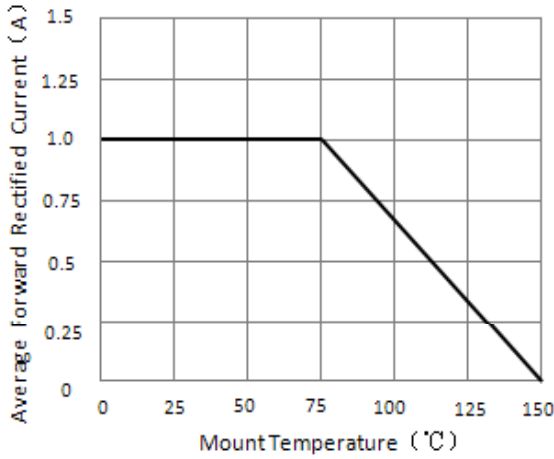


Figure 1. Forward Current Derating Curve

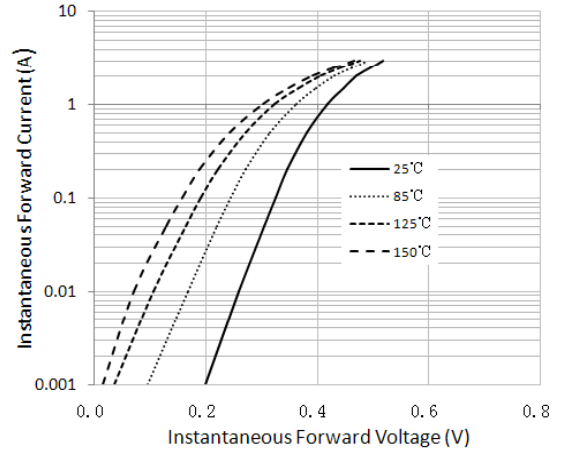


Figure 2. Typical Instantaneous Forward Characteristics

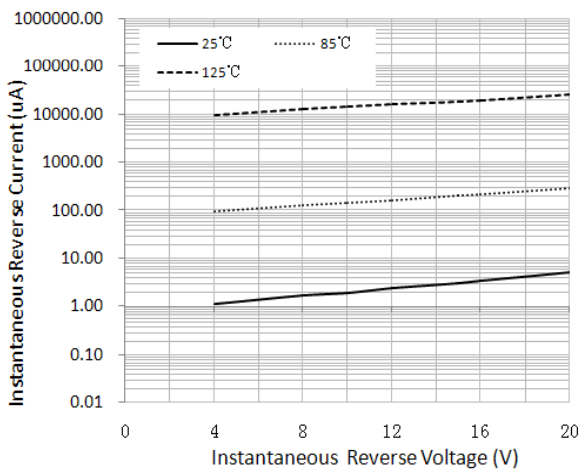


Figure 3. Typical Reverse Characteristics

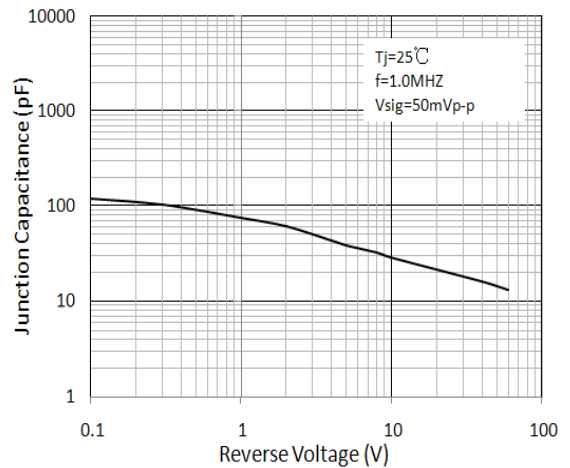


Figure 4. Typical Junction Capacitance

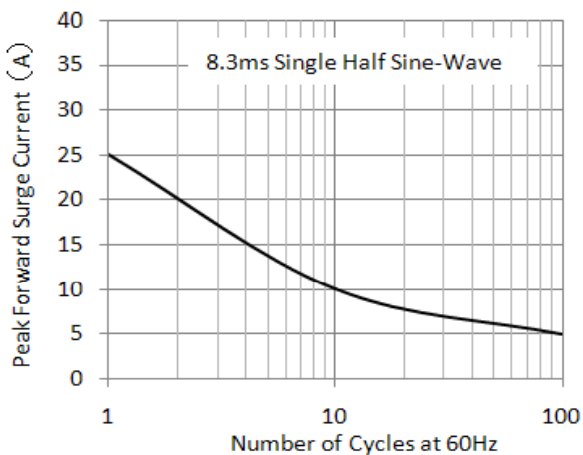
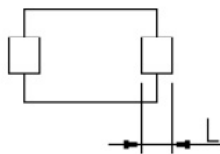
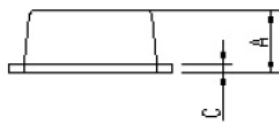
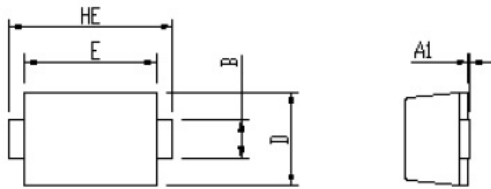


Figure 5. Maximum Non-Repetitive Peak Forward Surge Current

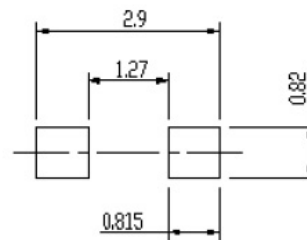
Package Outline Dimensions

eSGP (SOD-323F)



| DIM | Unit: mm | | Unit: inch | |
|-----|----------|------|------------|-------|
| | MIN | MAX | MIN | MAX |
| A | 0.9 | 1.08 | 0.035 | 0.043 |
| A1 | 0 | 0.1 | 0.000 | 0.004 |
| 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 | 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

