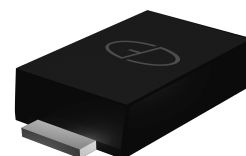


## Features

- Low  $V_F$  schottky barrier rectifiers
- Low profile - typical height 1.0 mm
- Low forward voltage drop
- Low leakage current
- 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: eSGA  
(SOD-123FL)

## Applications

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

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

| Parameter                                                                            | Symbol      | FSL32         | FSL33 | FSL34 | 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) | $I_{FSM}$   | 30            |       |       | A    |
| Operating Junction Temperature Range                                                 | $T_J$       | -55 to +125   |       |       | °C   |
| Storage Temperature Range                                                            | $T_{STG}$   | - 55 to + 150 |       |       | °C   |

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

| Parameter                                    | Test Conditions         | Symbol          | Value | Unit |
|----------------------------------------------|-------------------------|-----------------|-------|------|
| Instantaneous Forward Voltage                | 3 A                     | $V_F$           | 0.46  | V    |
| Reverse Current at Rated DC Blocking Voltage | $T_A=25^\circ\text{C}$  | $I_R$           | 1.0   | mA   |
|                                              | $T_A=125^\circ\text{C}$ |                 | 60    |      |
| Junction Capacitance                         | 4.0 V, 1 MHz            | $C_J$           | 160   | pF   |
| Typical Thermal Resistance <sup>1)</sup>     | Juntion to Mount        | $R_{\theta JM}$ | 25    | °C/W |

Note:1) The thermal resistance from junction to ambient, case or 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)

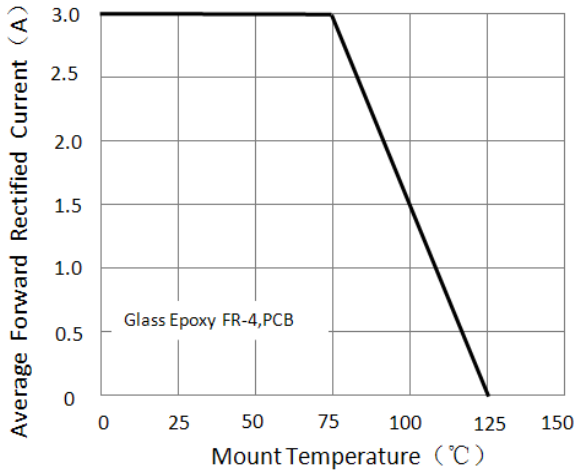


Figure 1. Forward Current Derating Curve

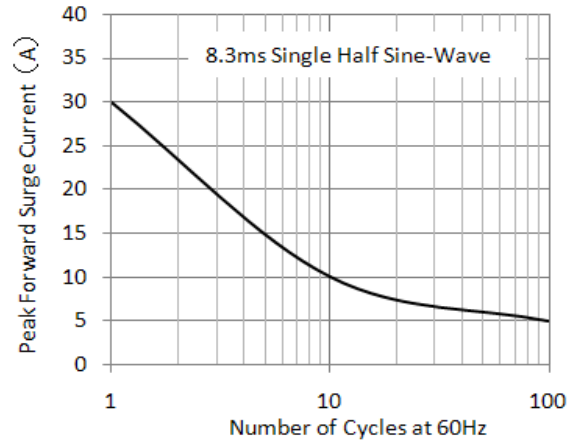


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

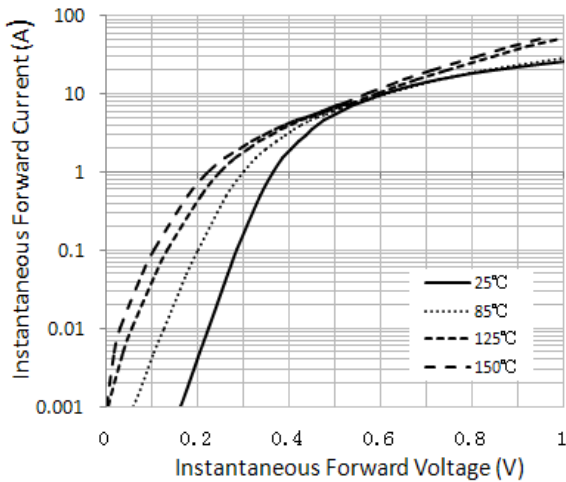


Figure 3. Typical Instantaneous Forward Characteristics

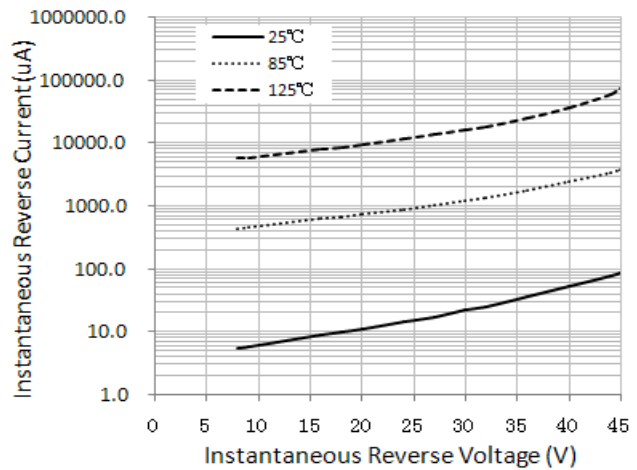


Figure 4. Typical Reverse Characteristics

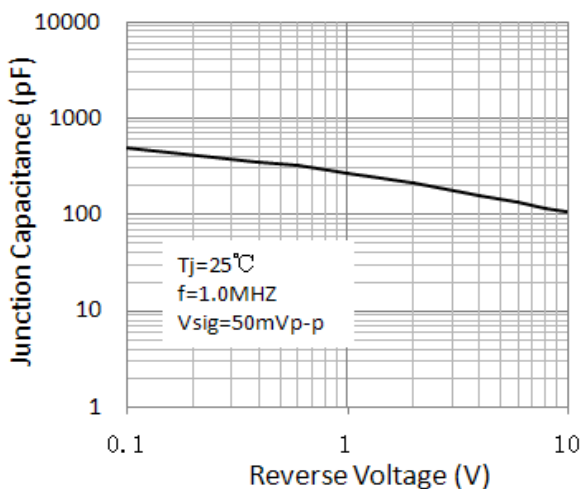
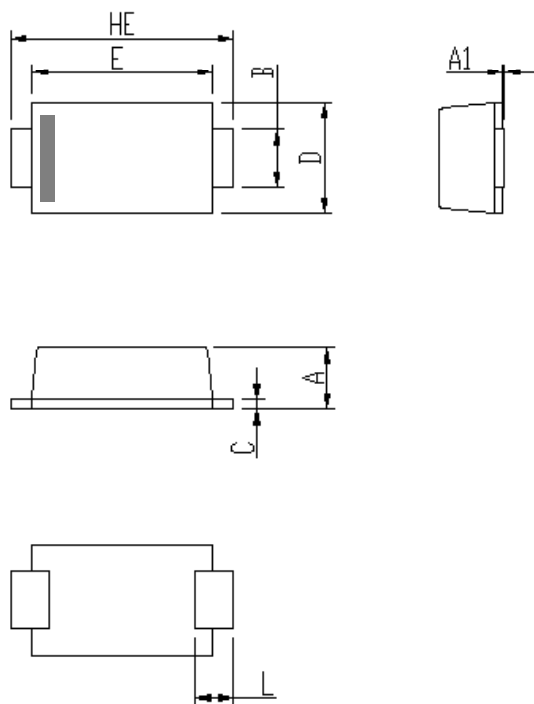


Figure 5. Typical Junction Capacitance

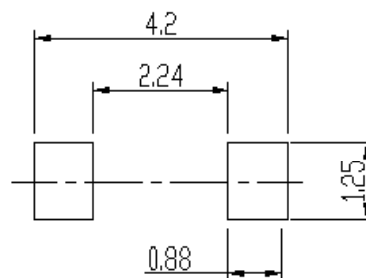
## Package Outline Dimensions

eSGA (SOD-123FL)



| 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   | 0.85     | 1.05 | 0.033      | 0.041 |
| C   | 0.1      | 0.25 | 0.004      | 0.010 |
| D   | 1.7      | 2    | 0.067      | 0.079 |
| E   | 2.9      | 3.1  | 0.114      | 0.122 |
| L   | 0.43     | 0.83 | 0.017      | 0.033 |
| HE  | 3.5      | 3.9  | 0.138      | 0.154 |

Soldering footprint



## Packing Information

### Packing quantities

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

### Tape & Reel Spec

