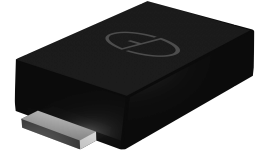


## Features

- Low  $V_F$  schottky barrier rectifier
- Low profile - typical height 1.0 mm
- Low forward voltage drop
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- AEC-Q101 qualified
- 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.

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

Parameter	Symbol	FS1BH	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	100	V
Maximum RMS Voltage	$V_{RMS}$	70	V
Maximum DC Blocking Voltage	$V_{DC}$	100	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)	$I_{FSM}$	40	A
Operation Junction Temperature Range	$T_J$	150	°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	FS1BH	Unit
Maximum Instantaneous Forward Voltage	$I_F=1\text{A}$	$V_F$	0.81	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^\circ\text{C}$	$I_R$	200	$\mu\text{A}$
	$T_A=125^\circ\text{C}$		20	mA
Typical Thermal Resistance <sup>1)</sup>	Junction to Ambient	$R_{\theta JA}$	85	°C/W
	Junction to Case	$R_{\theta JC}$	50	
	Junction to Mount	$R_{\theta JM}$	20	

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)

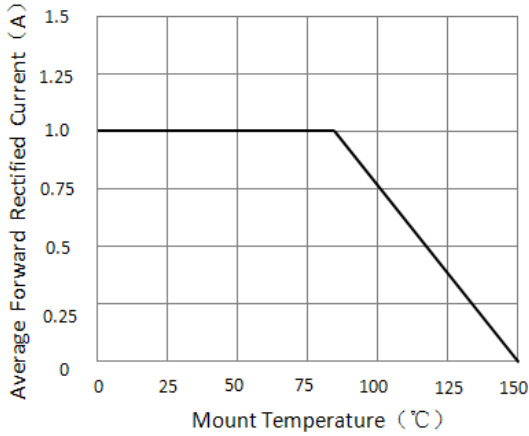


Figure 1. Forward Current Derating Curve

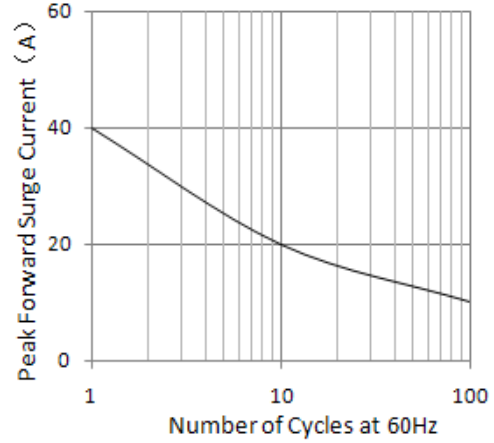


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

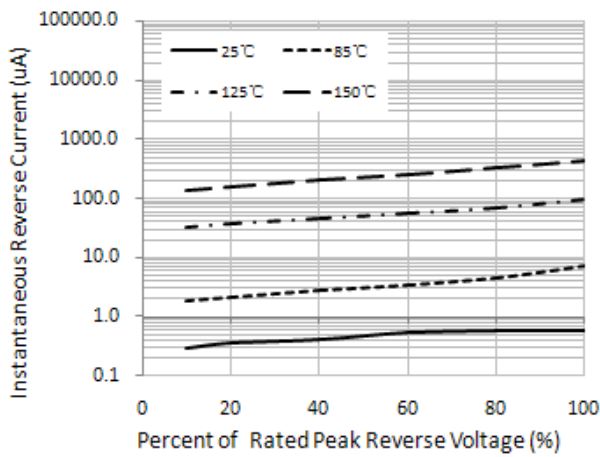


Figure 3. Typical Instantaneous Reverse Characteristics

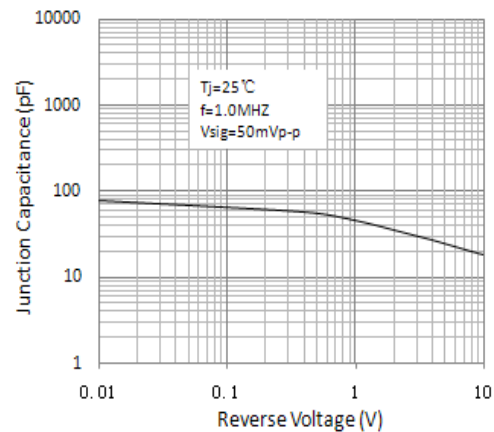


Figure 4. Typical Junction Capacitance

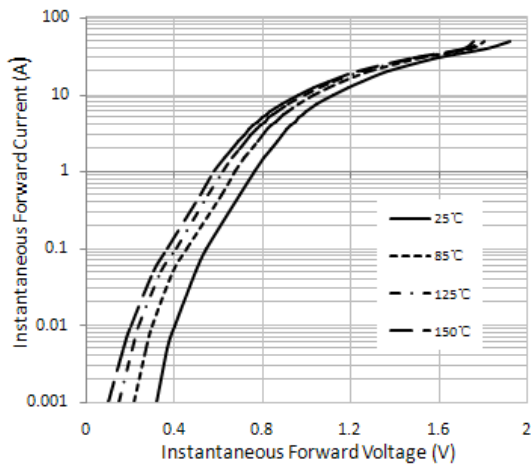
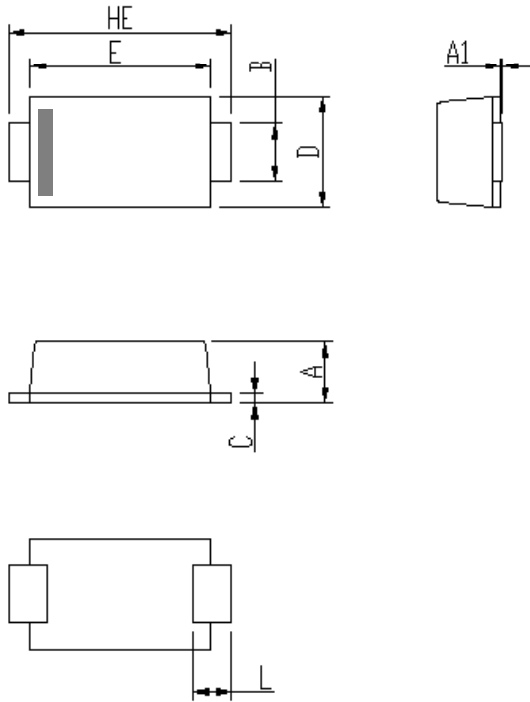


Figure 5. Typical Instantaneous Forward Characteristics

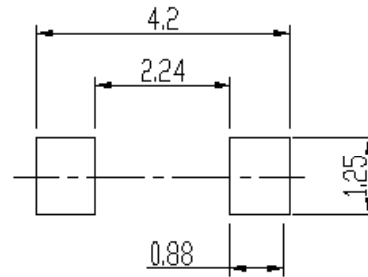
**Package Outline Dimensions**

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 Specification**

