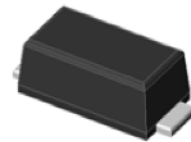


## Features

- 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
- AEC-Q101 qualified
- High temperature soldering guaranteed: 260°C/10 seconds
- Halogen-free according to IEC 61249-2-21 definition



RoHS  
COMPLIANT



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<sub>A</sub> = 25°C unless otherwise noted)

Parameter	Symbol	FS12	FS13	FS14	FS16	FS1B	FS1B5H	FS1CH	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	60	100	150	200	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	42	70	105	140	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	60	100	150	200	V
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	1.0							A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	I <sub>FSM</sub>	30.0							A
Operation Junction Temperature Range	T <sub>J</sub>	- 55 to + 150							°C
Storage Temperature Range	T <sub>STG</sub>	- 55 to + 150							°C

## Electrical Characteristics (T<sub>A</sub> = 25°C unless otherwise noted)

Parameter	Test Conditions	Symbol	FS12	FS13	FS14	FS16	FS1B	FS1B5H	FS1CH	Unit
Maximum Instantaneous Forward Voltage	I <sub>F</sub> =0.5A, T <sub>A</sub> =25°C	V <sub>F</sub>	0.40	0.45		0.55	0.75	0.80		V
	I <sub>F</sub> =1 A, T <sub>A</sub> =25°C			0.50		0.70	0.81	0.90		
Maximum DC Reverse Current at Rated DC Blocking Voltage	T <sub>A</sub> =25°C	I <sub>R</sub>	200	200		200	150	200		μA
	T <sub>A</sub> =125°C		10	30		20				mA
Typical Thermal Resistance <sup>1)</sup>	Junction to Ambient	R <sub>θJA</sub>	90							°C/W
	Junction to Case	R <sub>θJC</sub>	60							
	Junction to Mount	R <sub>θJM</sub>	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)

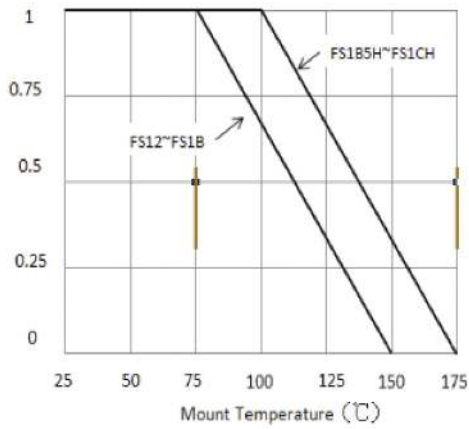


Figure 1. Forward Current Derating Curve

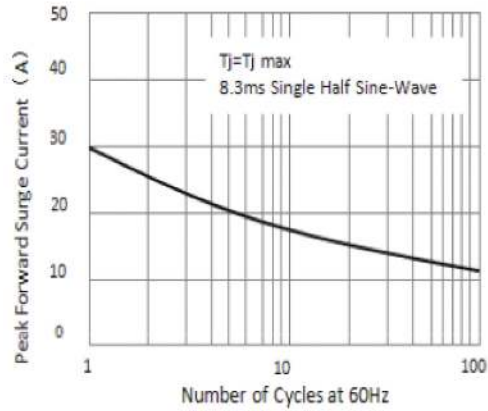


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

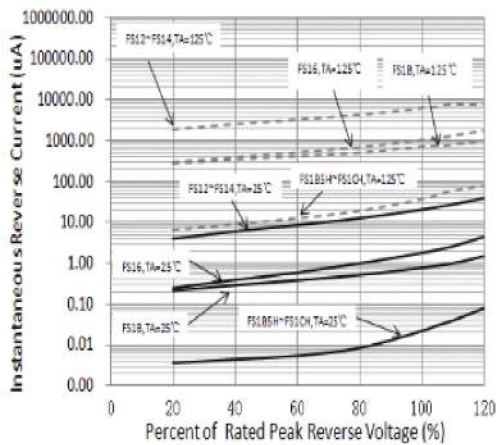


Figure 3. Typical Instantaneous Reverse Characteristics

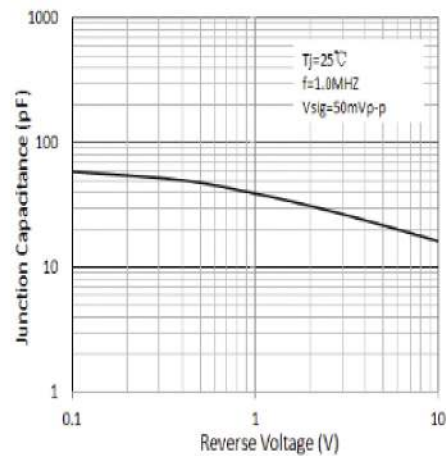


Figure 4. Typical Junction Capacitance

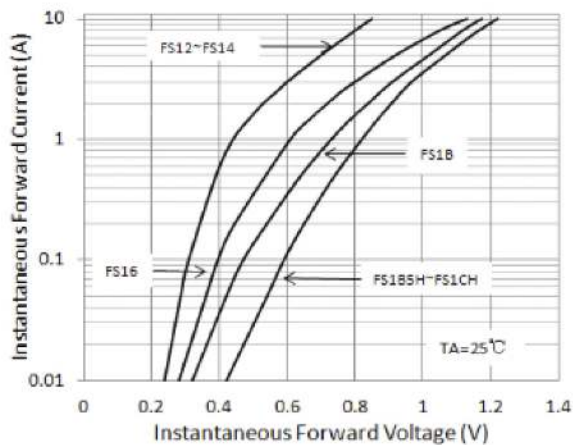
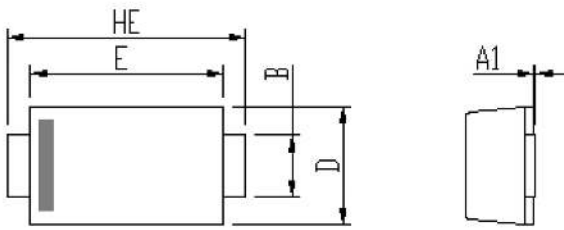


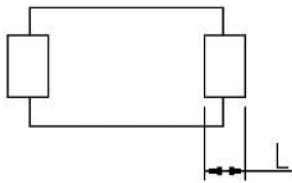
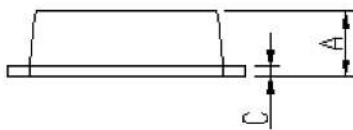
Figure 5. Typical Instantaneous Forward Characteristics

## Package Outline Dimensions

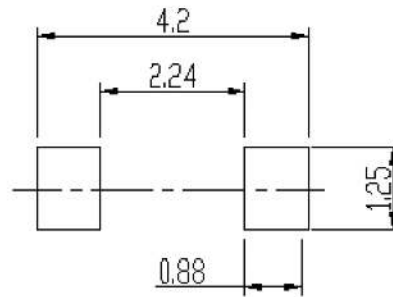
eSGA (SOD-123FL)



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 Spec

