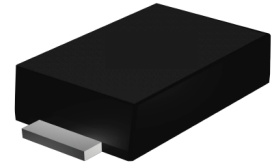


Features

- 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	FS12NS	FS13NS	FS14NS	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	$I_{F(AV)}$	1.0			A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	I_{FSM}	25			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	Typ.	Max	Unit
Instantaneous Forward Voltage	0.5A	V _F	0.43	-	V
	1 A		-	0.52	
Reverse Current at Rated DC Blocking Voltage	T _A =25°C	I _R	-	0.50	mA
	T _A =100°C		-	30	
Junction Capacitance	4.0 V, 1 MHz	C _J	46		pF
Typical Thermal Resistance ¹⁾	Juntion to Ambient	R _{θJA}	95		°C/W
	Juntion to Case	R _{θJC}	60		
	Juntion to Mount	R _{θJM}	30		

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)

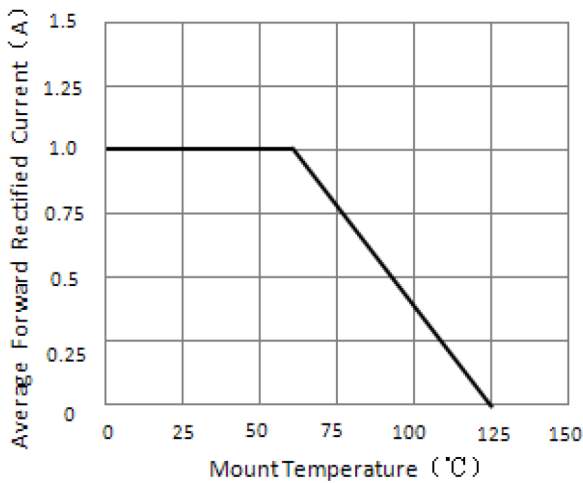


Figure 1. Forward Current Derating Curve

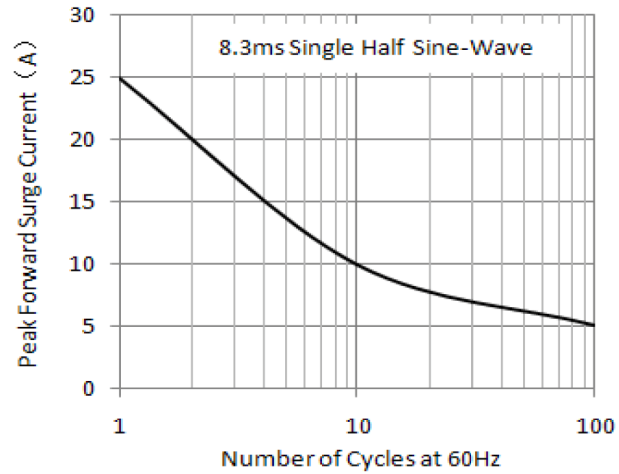


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

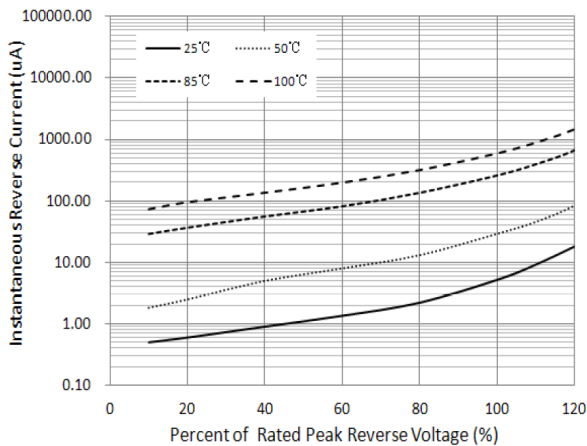


Figure 3. Typical Reverse Characteristics

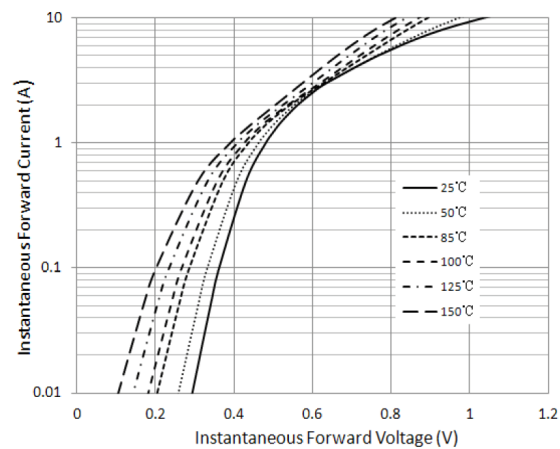


Figure 4. Typical Instantaneous Forward Characteristics

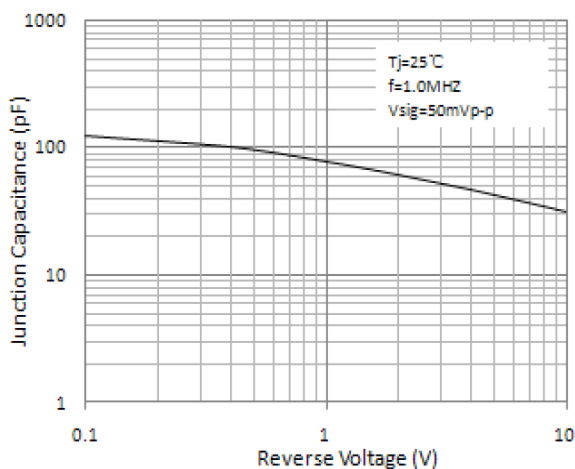
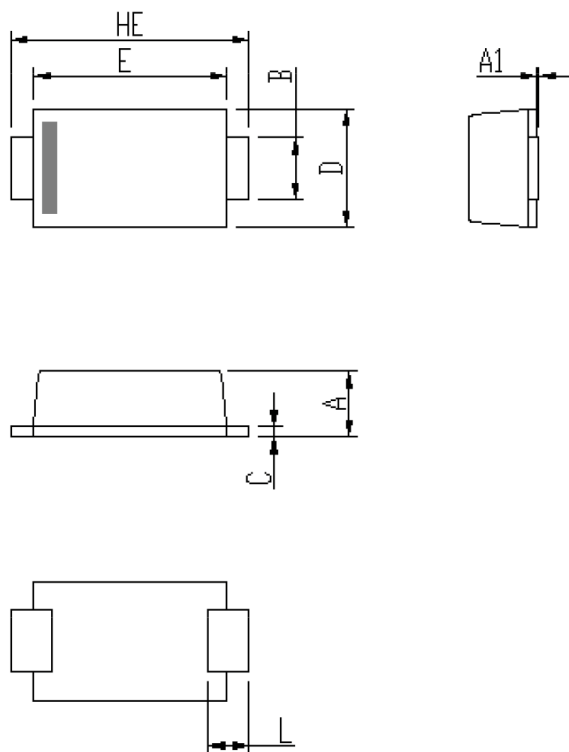


Figure 5. Typical Junction Capacitance

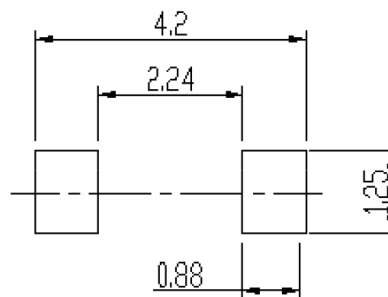
Package Outline Dimensions

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

