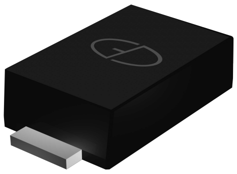
GOOD-ARK
SEMICONDUCTOR

FH1 thru FH7

Surface Mount Glass Passivated High Efficiency Rectifier
Reverse Voltage 50~1000V   Forward Current 1A

Features

- Low profile - typical height of 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)

Pb
RoHS
COMPLIANT

Applications

For use in general purpose rectifications in lighting, cellular phones, portable devices, power supplies and other consumer applications.

Maximum Ratings (T$_A$ = 25°C unless otherwise noted)

Parameter	Symbol	FH1	FH2	FH3	FH4	FH5	FH6	FH7	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	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}	30							A
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150							°C

Electrical Characteristics (T$_A$ = 25°C unless otherwise noted)

Parameter	Test Conditions	Symbol	FH1	FH2	FH3	FH4	FH5	FH6	FH7	Unit
Maximum Instantaneous Forward Voltage	1 A	V_F	1.3				1.7			V
Maximum DC Reverse Current at rated DC Blocking Voltage	T_A=25°C	I_R	5							μA
	T_A=125°C		100							
Maximum Reverse Recovery Time	I_F=0.5A,I_R=1.0A I_{rr}=0.25A	t_{rr}	50				75			nS
Typical Thermal Resistance[1]	Juntion to Ambient	$R_{\theta JA}$	66							°C/W
	Juntion to Case	$R_{\theta JC}$	28							
	Juntion to Mount	$R_{\theta JM}$	1							

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

Ratings and Characteristics Curves (T$_A$ = 25°C unless otherwise noted)

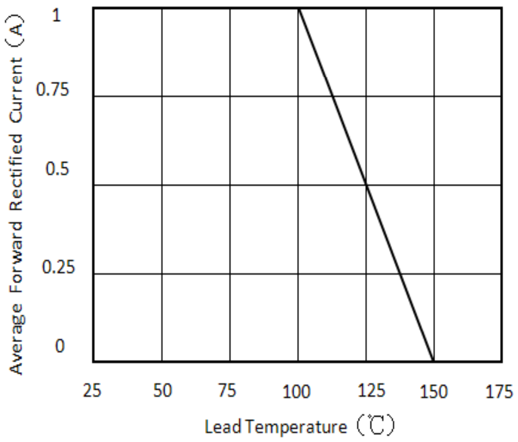


Figure 1.Forward Current Derating Curve

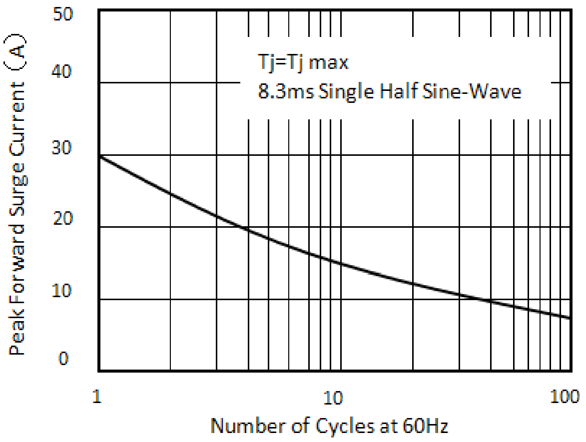


Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

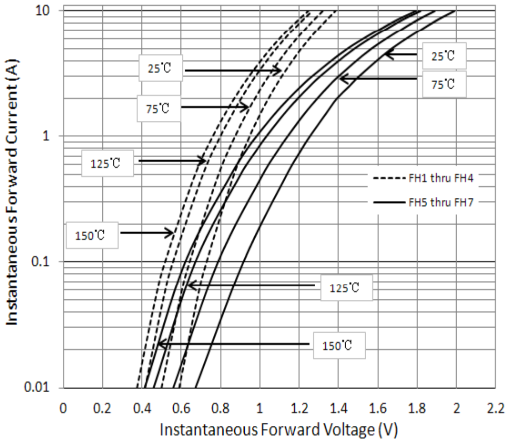


Figure 3. Typical Instantaneous Forward Characteristics

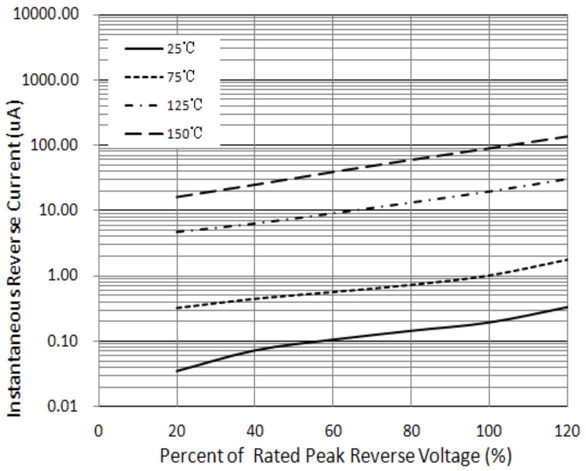
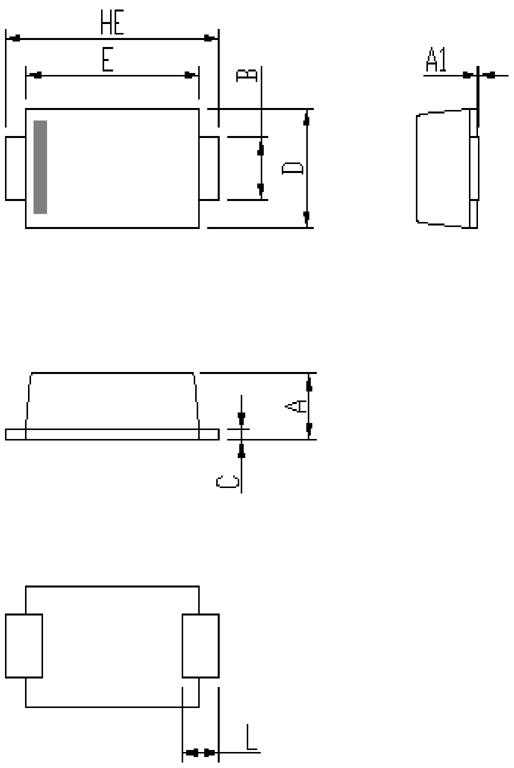


Figure 4. Typical Reverse Characteristics

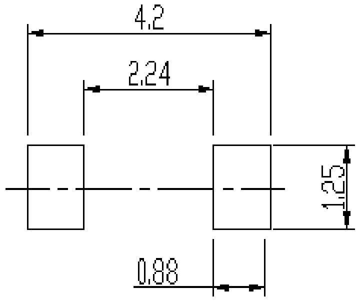
Package Outline Dimensions

Package: 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 Specifications