GOOD-ARK
SEMICONDUCTOR

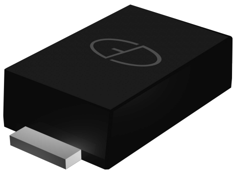
FH1 thru FH7

Surface Mount Glass Passivated High Efficiency Rectifiers
Reverse Voltage 50-1000V Forward Current 1A

Features

- Low leakage current
- Low forward voltage drop
- Glass passivated chip junction
- 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

RoHS
COMPLIANT



Package: eSGA
(SOD-123FL)

Applications

For use of fast switching rectification in lighting, cellular phone, portable device, 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							A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load Per Diode	I_{FSM}	30							A
Typical Thermal Resistance, Junction to Ambient[1]	$R_{\theta JA}$	100							°C /W
Typical Thermal Resistance, Junction to Case[1]	$R_{\theta JC}$	20							°C /W
Typical Thermal Resistance, Junction to Lead[1]	$R_{\theta JL}$	20							°C /W
Operating Junction Temperature Range	T_J	-55 to +150							°C
Storage Temperature Range	T_{STG}	-55 to +150							°C

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	Test Conditions	FH1	FH2	FH3	FH4	FH5	FH6	FH7	Unit
Forward Drop Voltage	V_F	I_F=1A	1.3				1.7			V
Reverse Leakage Current @ V_R	I_R	T_J=25℃	5							uA
		T_J=125℃	100							
Maximum Reverse Recovery Time	t_{rr}	I_F=0.5A, I_R=1.0A, I_{RR}=0.25A	50				75			nS

Note:
1. Mounted on copper pad area of 0.2x0.2" (5.0 x 5.0mm) to each terminal.

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

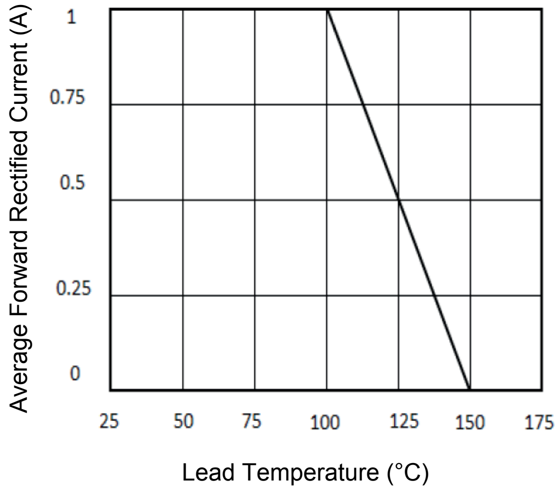


Figure 1. Forward Current Derating Curve

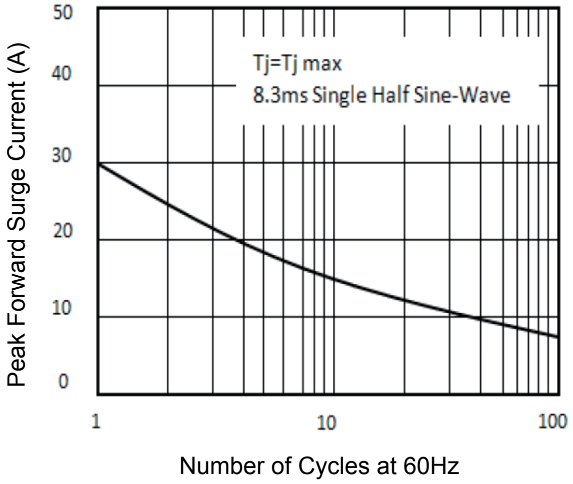


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

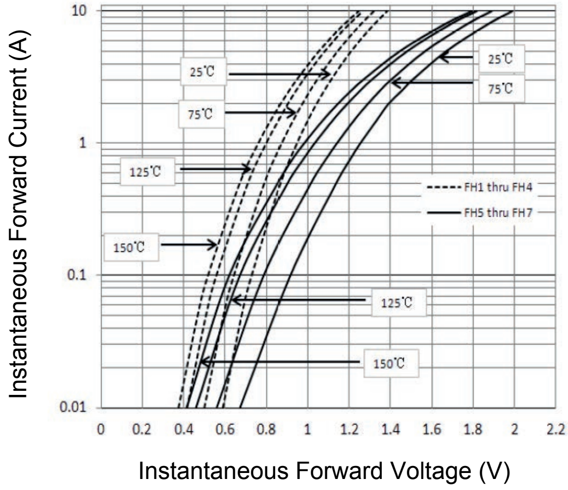


Figure 3. Typical Instantaneous Forward Characteristics

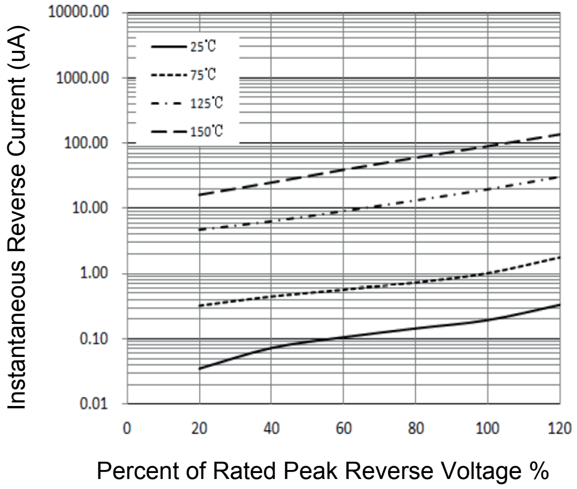


Figure 4. Typical Reverse Characteristics

FH1 thru FH7

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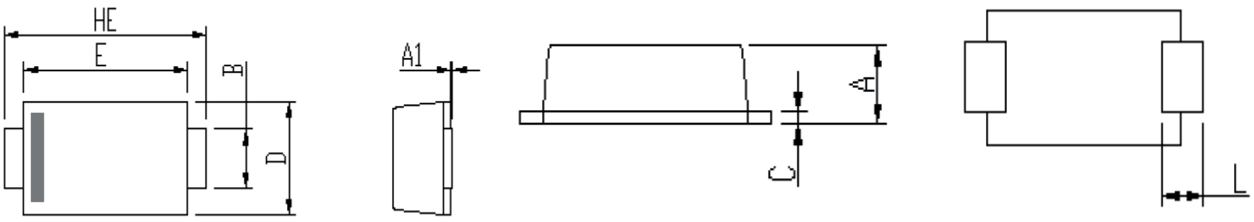
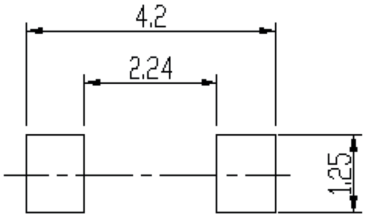
Reverse Voltage 50-1000V Forward Current 1A

Package Outline Dimensions eSGA (SOD-123FL)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.90	1.08	0.035	0.043
A1	0.00	0.10	0.000	0.004
B	0.85	1.05	0.033	0.041
C	0.10	0.25	0.004	0.010
D	1.70	2.00	0.067	0.079
E	2.90	3.10	0.114	0.122
L	0.43	0.83	0.017	0.033
HE	3.50	3.90	0.138	0.154

Recommended Pad Layout



Unit: mm

Order Information

Device	Package	Marking	Quantity
FH1	eSGA (SOD-123FL)	H1	3,000pcs / Reel
FH2	eSGA (SOD-123FL)	H2	3,000pcs / Reel
FH3	eSGA (SOD-123FL)	H3	3,000pcs / Reel
FH4	eSGA (SOD-123FL)	H4	3,000pcs / Reel
FH5	eSGA (SOD-123FL)	H5	3,000pcs / Reel
FH6	eSGA (SOD-123FL)	H6	3,000pcs / Reel
FH7	eSGA (SOD-123FL)	H7	3,000pcs / Reel

For more information, please contact us at: inquiry@goodarksemi.com