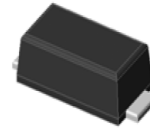


### Features

- Glass passivated Standard Rectifiers
- Very low profile - typical height of 1.0 mm
- Low forward voltage drop, Low leakage current
- ESD capability
- 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



eSGA  
(SOD-123FL)

### Typical Applications

For use of general purpose rectification, power supplies and other consumer applications, polarity protection, and rail-to tail protection in both consumer and automotive

<b>Maximum Ratings</b> (TA = 25 °C unless otherwise noted)			
Parameter	Symbol	SGA1J	Unit
Maximum repetitive peak reverse voltage	VRRM	600	V
Maximum RMS voltage	VRMS	420	V
Maximum DC blocking voltage	VDC	600	V
Maximum average forward rectified current	IF(AV)	1.0	A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	25	A
Operating junction and storage temperature range	TJ, TSTG	- 55 to + 150	°C

<b>Electrical Characteristics</b> (TA = 25 °C unless otherwise noted)				
Parameter	Test Conditions	Symbol	SGA1J	Unit
Maximum instantaneous forward voltage	1 A	V <sub>F</sub>	1.0	Volts
Maximum DC reverse current at rated DC blocking voltage	TA=25°C	I <sub>R</sub>	5	µA
	TA=125°C		50	
Typical reverse recovery time	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>rr</sub> =0.25A	t <sub>rr</sub>	1.8	µs
Typical junction capacitance	4.0 V, 1 MHz	C <sub>J</sub>	6	pF

Immunity to Electrical Static Discharge to the Following Standards (TA=25°C, unless otherwise noted)					
Standard	Test Type	Test Conditions	Symbol	Class	Value
JESD22-A114/AEC-Q101-001	Human body model (contact mode)	C=100pF,R=1.5KΩ	VC	H3A	>4KV
JESD22-A115/AEC-Q101-002	Machine model(contact mode)	C=200pF,R=0Ω		M4	>400V

Thermal Characteristics (TA=25°C, unless otherwise noted)			
Parameter	Symbol	SGA1J	Unit
Typical thermal resistance	R <sub>θJA</sub>	70	°C/W
	R <sub>θJM</sub>	15	
	R <sub>θJC</sub>	35	

Note: Thermal resistance from junction to ambient and junction to lead mounted on PCB with 5.0mm\*5.0mm copper pad areas.

## Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

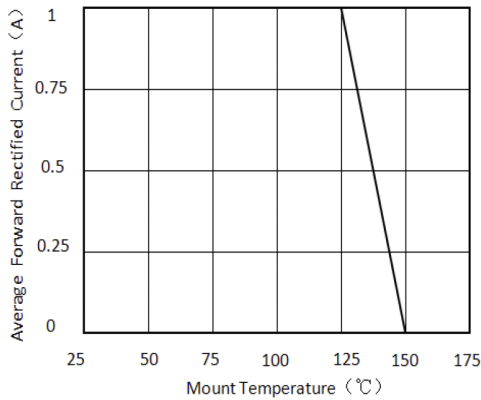


Figure 1. Forward Current Derating Curve

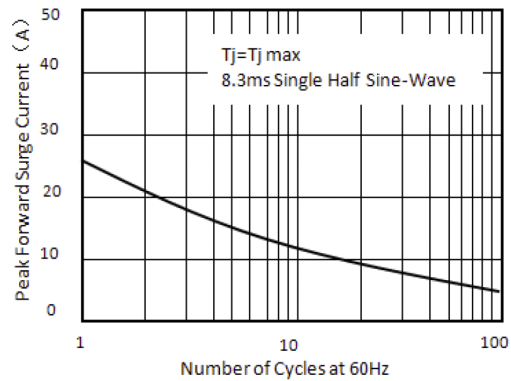


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

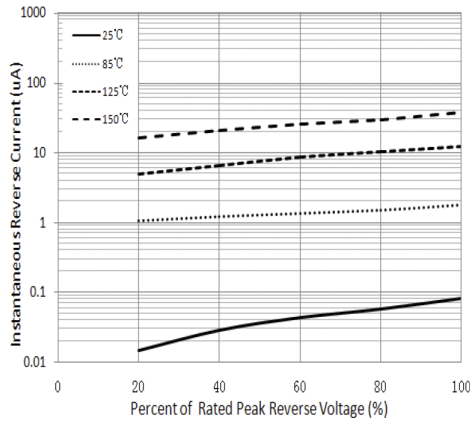


Figure 3. Typical Reverse Characteristics

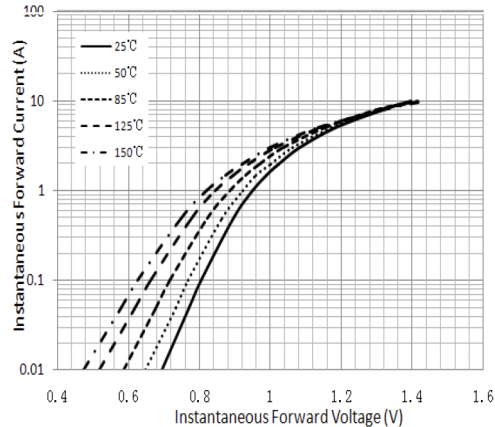
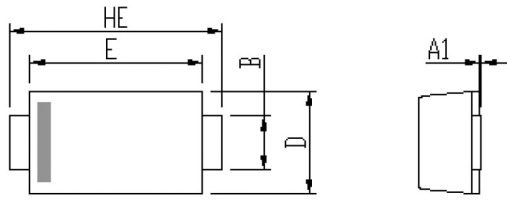
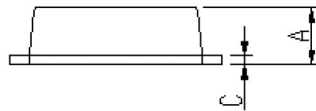


Figure 4. Typical Forward Characteristics

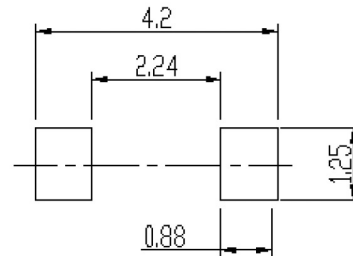
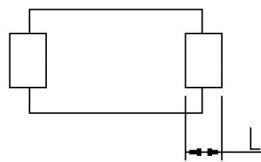
## Package Outline Dimensions



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

