

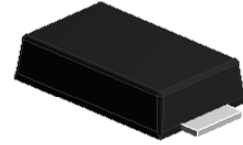


# LU1 thru LU5

Surface Mount Glass Passivated superfast recovery Rectifier  
 Reverse Voltage 50~600V Forward Current 1A

## Features

- Glass passivated Superfast Recovery rectifiers
- Ideal for automated placement
- Low forward voltage drop
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- AEC-Q101 qualified
- Low profile, typical thickness 1.0mm



eSGB (SMAF)

## Typical Applications

For use of general purpose rectification in lighting, cellular phone, portable device, power supplies and other consumer applications.

Maximum Ratings (TA = 25 °C unless otherwise noted)							
Parameter	Symbol	LU1	LU2	LU3	LU4	LU5	Unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	V
Maximum RMS voltage	VRMS	35	70	140	280	420	V
Maximum DC blocking voltage	VDC	50	100	200	400	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	30					A
Operating junction and storage temperature range	TJ, TSTG	- 55 to + 150					°C

Electrical Characteristics (TA = 25 °C unless otherwise noted)								
Parameter	Test Conditions	Symbol	LU1	LU2	LU3	LU4	LU5	Unit
Maximum instantaneous forward voltage	1 A	VF	1.0			1.3	1.7	Volts
Maximum DC reverse current at rated DC blocking voltage	TA=25°C	IR	5					µA
	TA=125°C		50					
Typical reverse recovery time	IF=0.5A, IR=1.0A, IRR=0.25A	t <sub>rr</sub>	35					nS
Typical junction capacitance	4.0 V, 1 MHz	CJ	10					pF
Typical thermal resistance <sup>1)</sup>	junction to ambient	R <sub>θJA</sub>	66					°C/W
	junction to case	R <sub>θJC</sub>	32					
	junction to mount	R <sub>θJM</sub>	1					

Note:1), The thermal resistance from junction to ambient, case or mount, mounted on P.C.B with 8x8mm copper pads, 2 OZ, FR4 PCB



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## Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

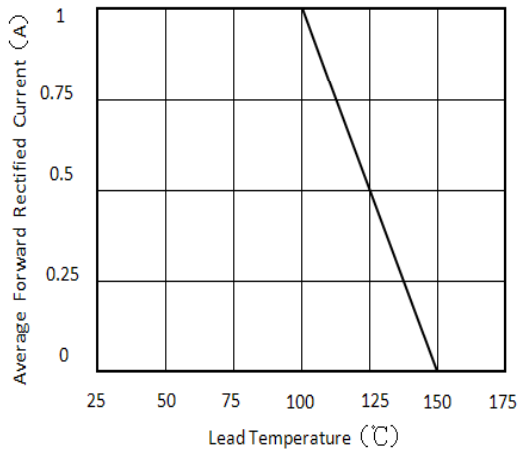


Figure 1. Forward Current Derating Curve

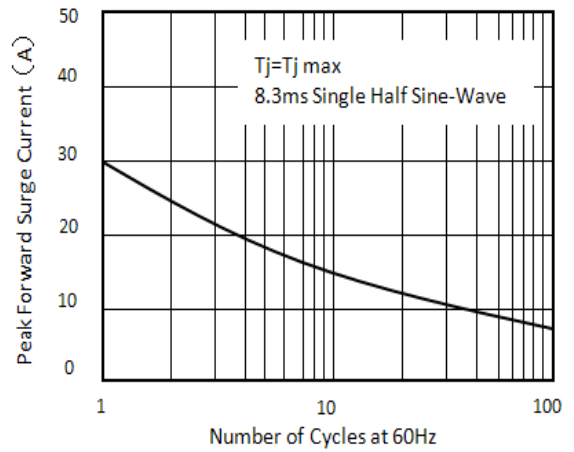


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

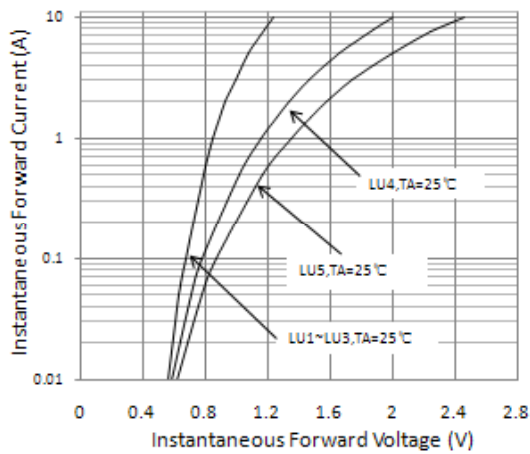


Figure 3. Typical Instantaneous Forward Characteristics

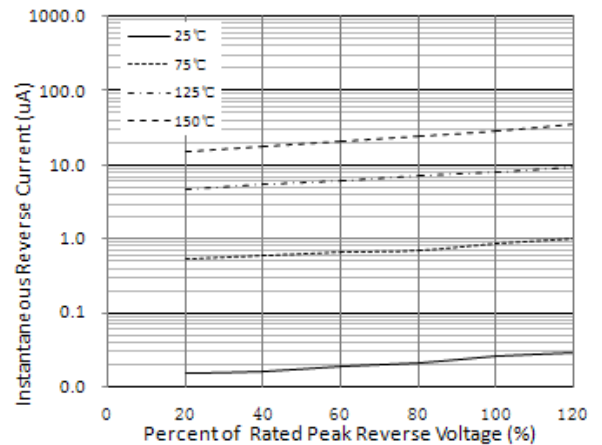


Figure 4. Typical Reverse Characteristics

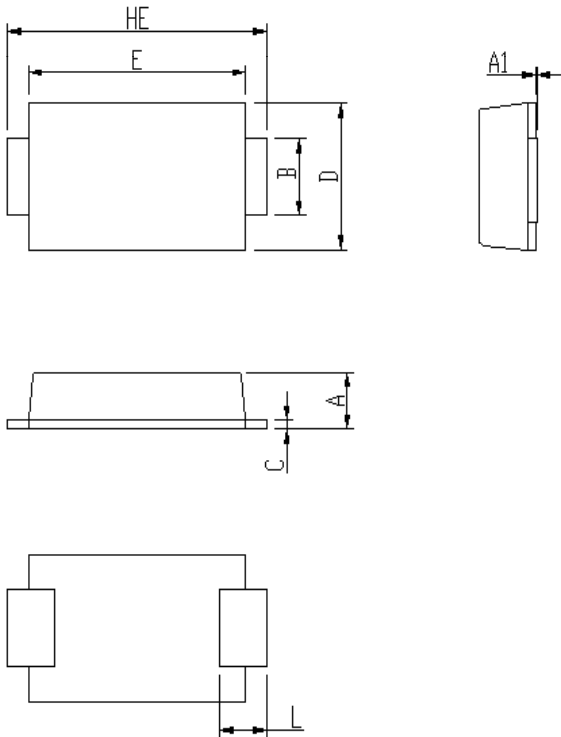


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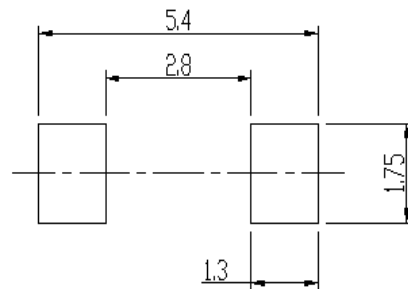
## Package Outline Dimensions

in inches (millimeters)



DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
A	0.92	1.08	0.036	0.043
A1	0	0.1	0.000	0.004
B	1.25	1.45	0.049	0.057
C	0.1	0.25	0.004	0.010
D	2.6	2.8	0.102	0.110
E	4.1	4.3	0.161	0.169
L	0.7	1.1	0.028	0.043
HE	4.8	5.2	0.189	0.205

Soldering footprint

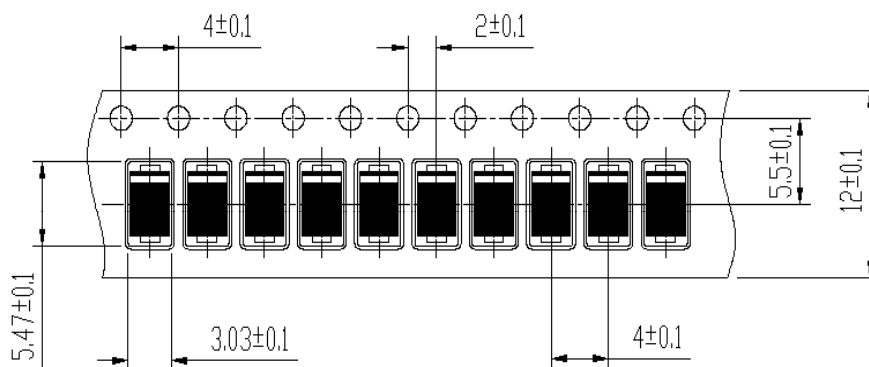


## Packing Information

**Packing quantities:**

10,000 pcs/Reel, 12mm Tape, 13" Reel

**Tape & Reel Specification**





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