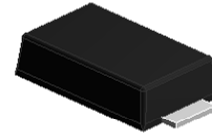


## Features

- Schottky barrier diodes
- Low forward voltage drop
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- Solder dip 260 °C, 10 s
- Low profile, typical thickness 1.0mm
- AEC-Q101 qualified



eSGB (SMAF)

## Typical Applications

For use in low voltage, high frequency inverters, free wheeling, and polarity protection application

Maximum Ratings (TA = 25 °C unless otherwise noted)				
Parameter	Symbol	LS54	LS545	Unit
Maximum repetitive peak reverse	VRRM	40	45	V
Maximum RMS voltage	VRMS	28	31.5	V
Maximum DC blocking voltage	VDC	40	45	V
Maximum average forward rectified current	IF(AV) <sup>1</sup>	3.0		A
	IF(AV) <sup>2</sup>	5.0		
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	150		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	LS54	LS545	Unit
Instantaneous forward voltage	IF=5A, TA=25°C	VF	Max, 0.55		Volts
	IF=5A, TA=125°C		typ, 0.45		
Maximum DC reverse current at rated DC blocking voltage	TA=25°C	IR	0.5		mA
	TA=125°C		20		
Typical junction capacitance	4.0 V, 1 MHz	C <sub>J</sub>	320		pF
Typical thermal resistance	junction to mount	R <sub>θJM</sub> <sup>1</sup>	20		°C/W

Note 1, Thermal resistance from junction to mount, mounted on PCB with 8.0×8.0mm copper pads

2, Mounted on Aluminum substrate pcb

## Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

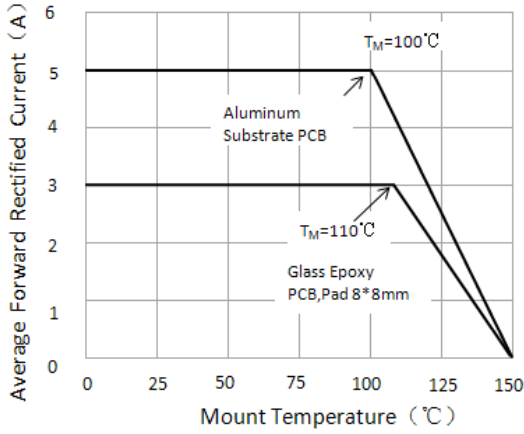


Figure 1. Forward Current Derating Curve

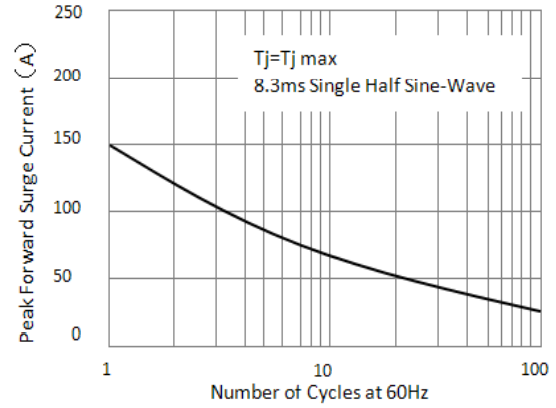


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

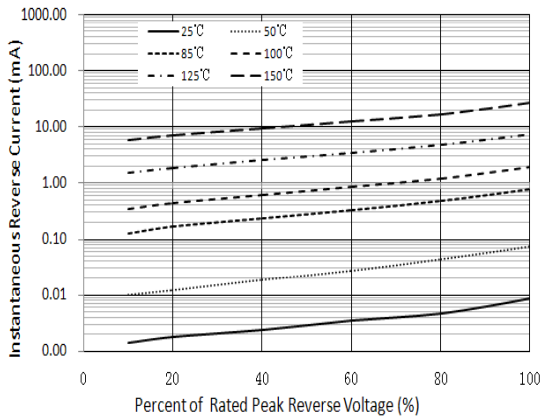


Figure 3. Typical Reverse Characteristics

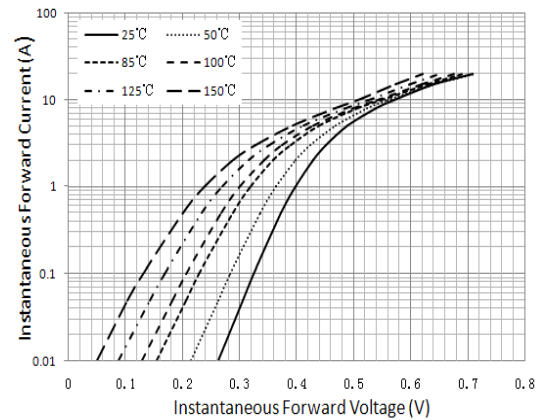
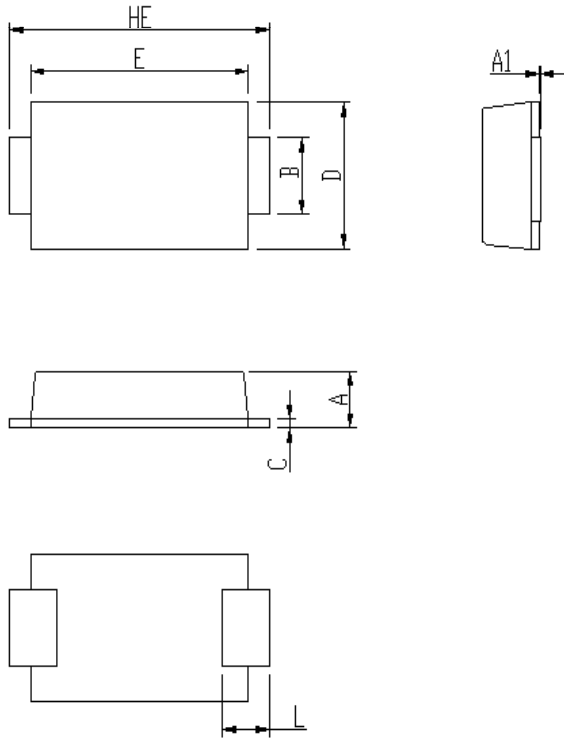


Figure 4. Typical Instantaneous Forward Characteristics

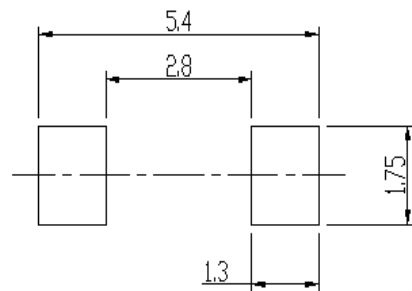
## Package Outline Dimensions

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	0.8	1.0	0.031	0.039
HE	4.8	5.2	0.189	0.205

Soldering footprint

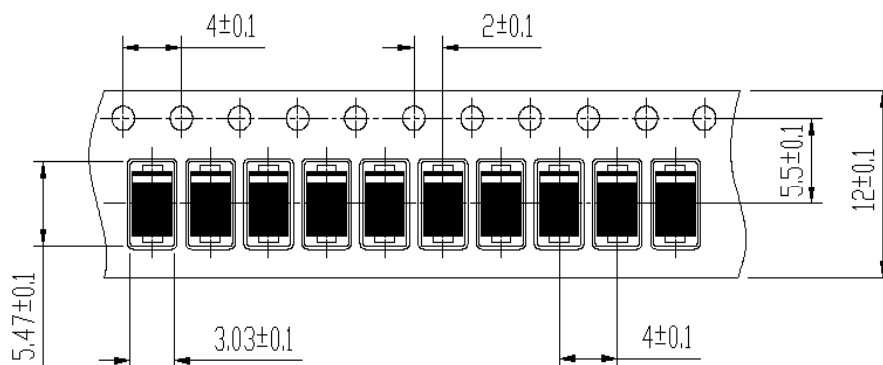


## Packing Information

**Packing quantities:**

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

**Tape & Reel Specification**





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