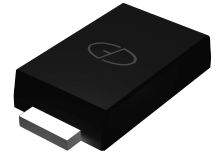


Features

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



RoHS
COMPLIANT

Package: eSGB(SMAF)

Applications

For uses in low voltage, high frequency inverters, free wheeling and polarity protection applications.

Maximum Ratings (T_A = 25°C unless otherwise noted)

Parameter	Symbol	LS5BH	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	100	V
Maximum RMS Voltage	V _{RMS}	70	V
Maximum DC Blocking Voltage	V _{DC}	100	V
Maximum Average Forward Rectified Current	I _{F(AV)} ¹⁾	5.0	A
	I _{F(AV)} ²⁾	3.0	
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	I _{FSM}	150	A
Operating Junction Temperature Range	T _J	- 55 to + 150	°C
Storage Temperature Range	T _{STG}	- 55 to + 175	°C

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

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Instantaneous Forward Voltage	I _F =5A, T _A =25°C	V _F	-	-	0.85	V
	I _F =5A, T _A =125°C		-	0.70	-	
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _A =25°C	I _R	0.5			mA
	T _A =125°C		50			
Typical Junction Capacitance	4.0 V, 1 MHz	C _J	25			pF
Typical Thermal Resistance	Juntion to Mount	R _{θJM} ¹⁾	20			°C/W

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

2) Free air, Mounted on recommended copper pad area FR4 PCB

Ratings and Characteristics Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

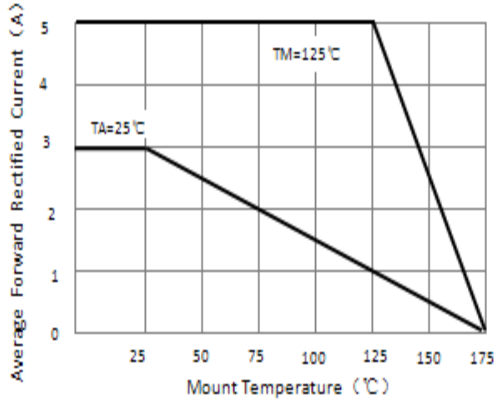


Figure 1. Forward Current Derating Curve

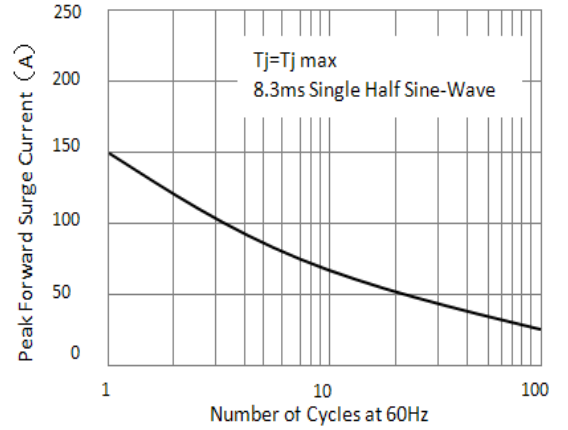


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

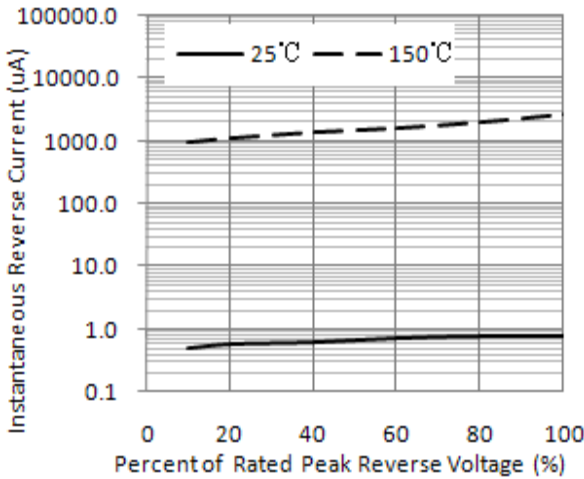


Figure 3. Typical Reverse Characteristics

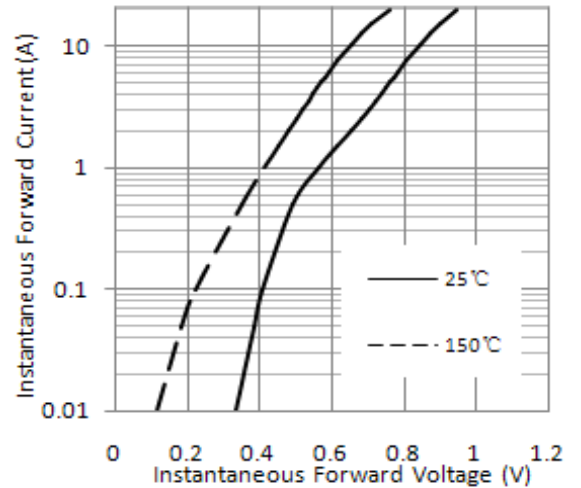


Figure 4. Typical Instantaneous Forward Characteristics

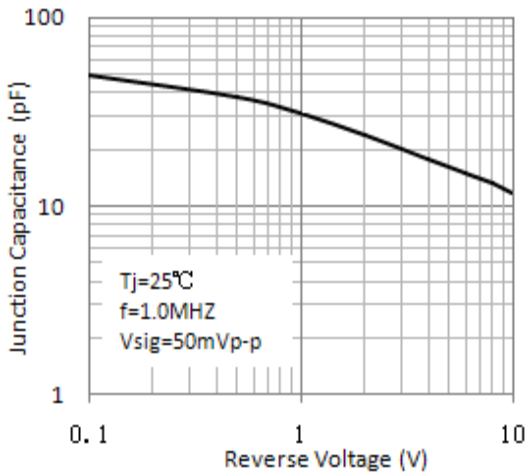
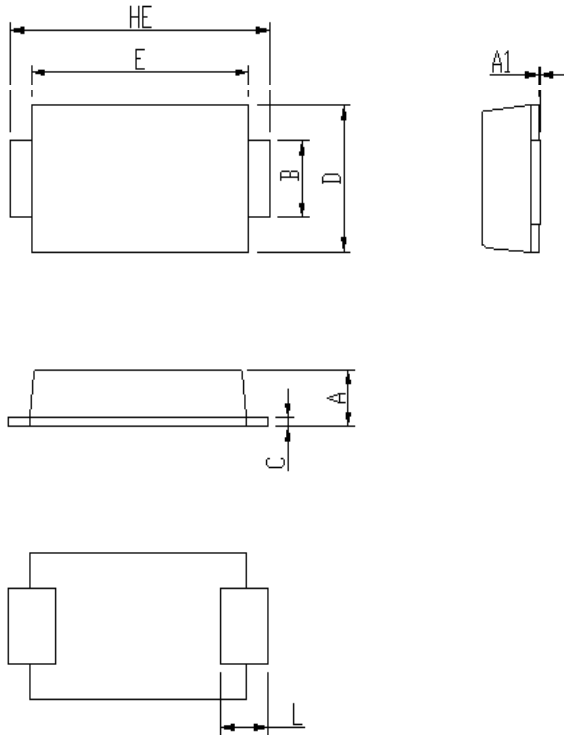


Figure 5. Typical Junction Capacitance

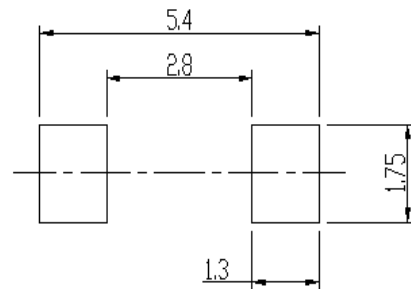
Package Outline Dimensions

eSGB (SMAF)



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

