

Features

- Low forward voltage drop
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- Low profile, typical thickness 1.0mm



RoHS
COMPLIANT

Package: eSMB(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	LS5B0	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 and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

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

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Instantaneous Forward Voltage	I _F =1A, T _J =25°C	V _F	-	0.35	-	V
	I _F =2A, T _J =25°C		-	0.38	-	
	I _F =3A, T _J =25°C		-	0.40	0.45	
	I _F =5A, T _J =25°C		-	0.44	0.50	
	I _F =5A, T _J =125°C		-	0.36	-	
Maximum DC Reverse Current @ rated DC Blocking Voltage	T _A =25°C	I _R	1			mA
	T _A =100°C		30			
Typical Junction Capacitance	4.0 V, 1 MHz	C _J	300			pF
Typical Thermal Resistance	Junction to Mount	R _{θJM} ¹⁾	14			°C/W

Note 1) Mounted on PCB with 8.0×8.0mm copper pads, 2 OZ, FR4 PCB.

2) Mounted on recommended copper pad area, free air.

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

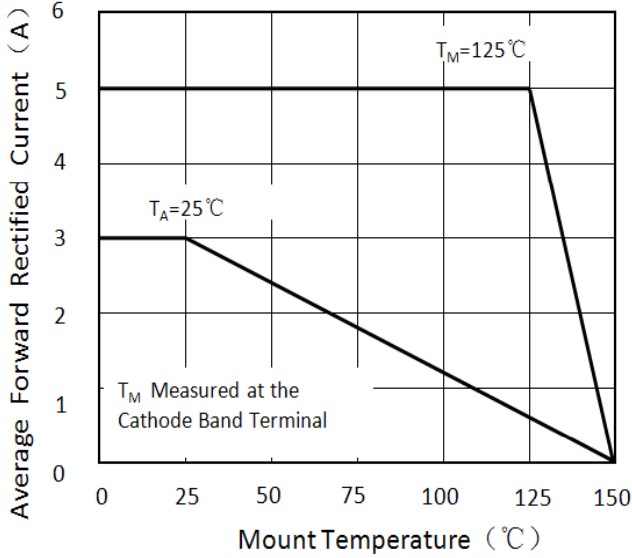


Figure 1. Forward Current Derating Curve

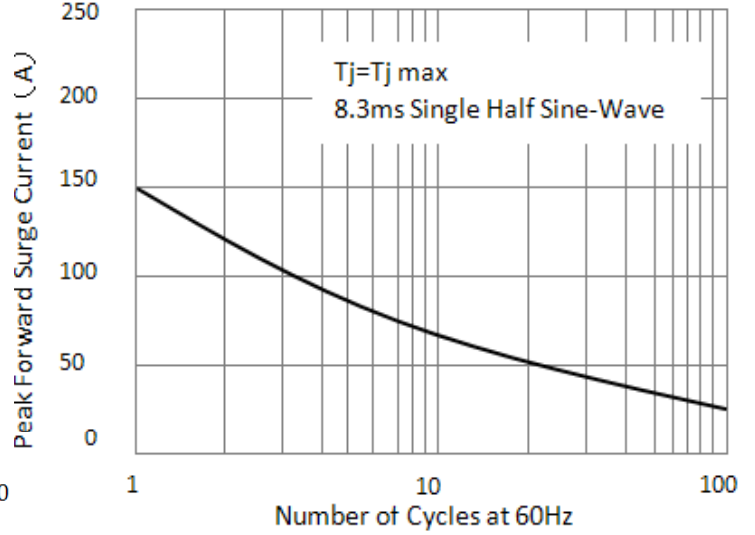


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

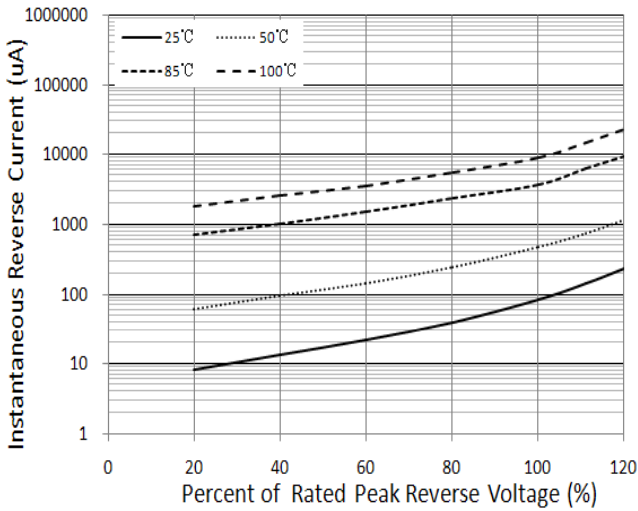


Figure 3. Typical Reverse Characteristics

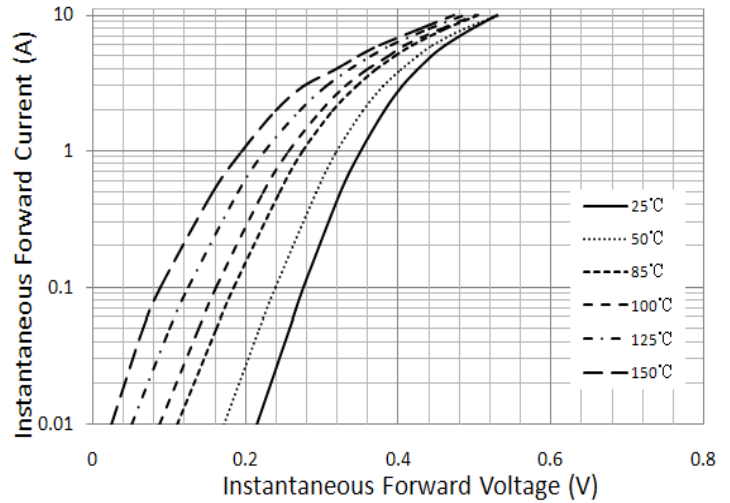


Figure 4. Typical Instantaneous Forward Characteristics

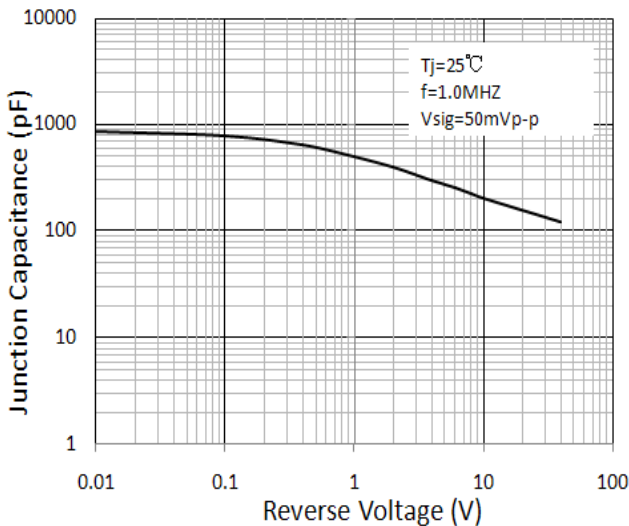
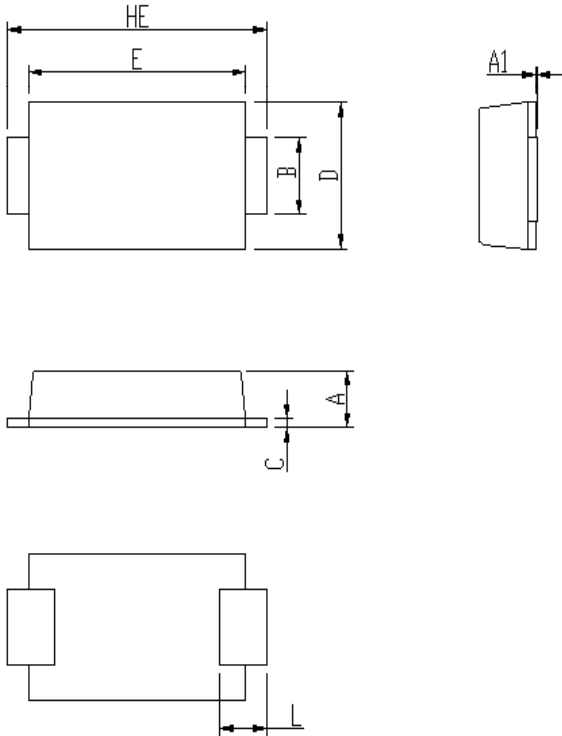


Figure 5. Typical Junction Capacitance

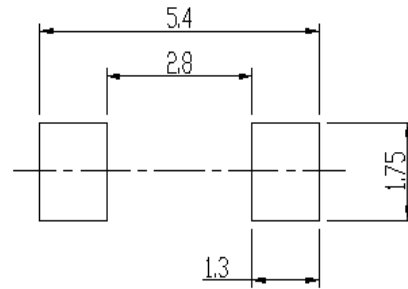
Package Outline Dimensions

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

3000 pcs/Reel , 12mm Tape, 13" Reel

Tape & Reel Specification

