

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	LS5B0	Unit
Maximum repetitive peak reverse voltage	VRRM	100	V
Maximum RMS voltage	VRMS	70	V
Maximum DC blocking voltage	VDC	100	V
Maximum average forward rectified current	IF(AV) ¹⁾	5.0	A
	IF(AV) ²⁾	3.0	
Peak forward surge current 8.3 ms single half	IFSM	150	A
Operating junction and storage temperature	TJ, TSTG	- 55 to + 150	°C

Electrical Characteristics (TA = 25 °C unless otherwise noted)						
Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Instantaneous forward voltage	IF=1A, TA=25°C	VF	-	0.49	-	Volts
	IF=2A, TA=25°C		-	0.60	-	
	IF=5A, TA=25°C		-	0.78	0.82	
	IF=5A, TA=125		-	0.61	0.70	
Maximum DC reverse current at rated DC blocking	TA=25°C	IR	0.5			mA
	TA=125°C		50			
Typical junction capacitance	4.0 V, 1 MHz	C _J	154			pF
Typical thermal resistance	junction to mount	R _{θJM} ¹⁾	20			°C/W
	junction to ambient	R _{θJA} ²⁾	75			

Notes: 1)Thermal resistance R_{θJM} is junction to mount. Free air,mounted on aluminum P.C.B with recommended copper pad

2)Thermal resistance R_{θJA} is junction to ambient.Mounted on P.C.B with 8×8mm copper pads,2 OZ,FR4 PCB

Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

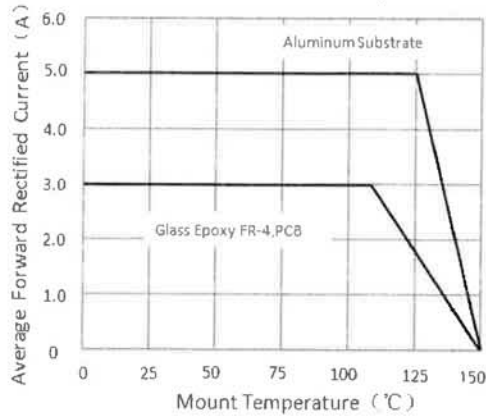


Figure 1. Forward Current Derating Curve

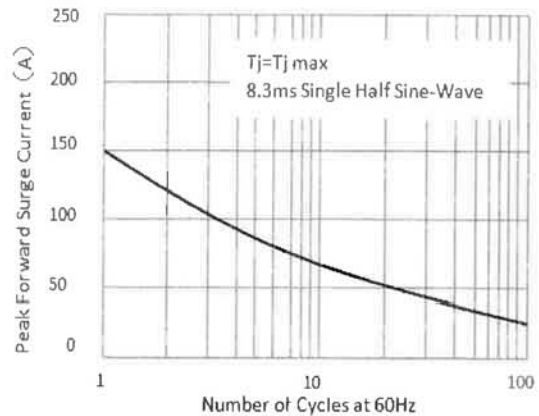


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

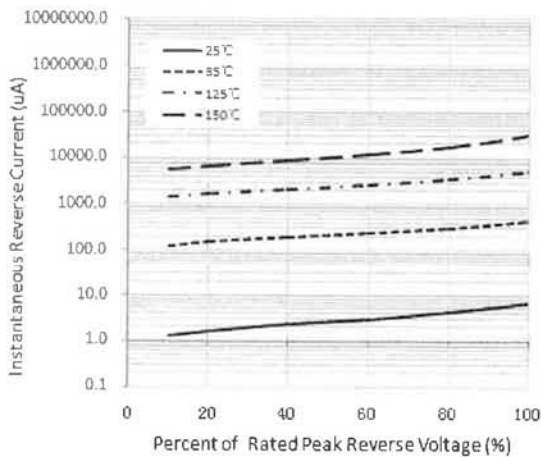


Figure 3. Typical Reverse Characteristics

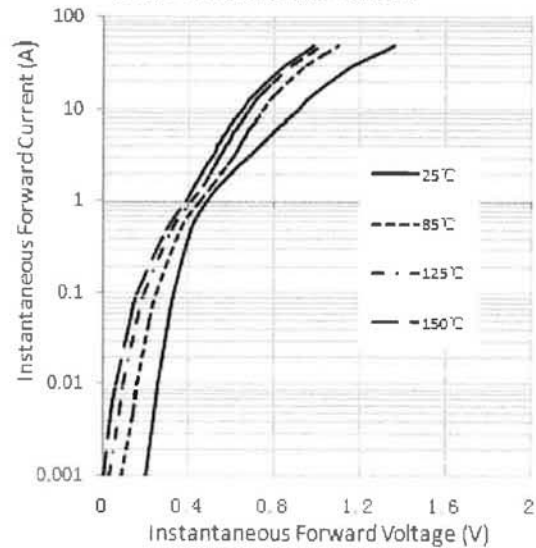


Figure 4. Typical Instantaneous Forward Characteristics

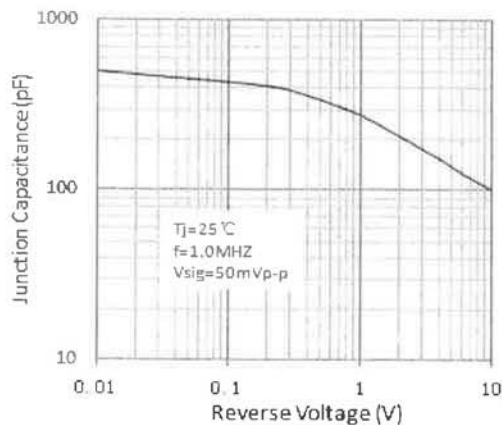
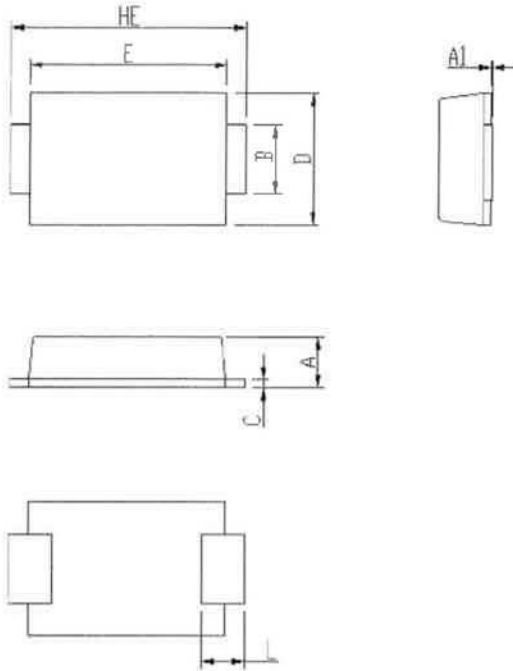


Figure 5. Typical Junction Capacitance

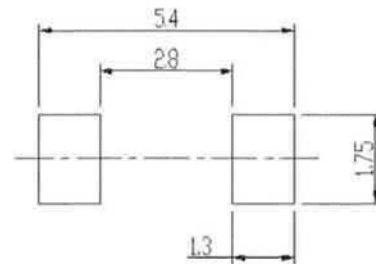
Package Outline Dimensions

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

