

Features

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



Package: eSGB(SMAF)



RoHS
COMPLIANT

Applications

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

Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	60	V
Maximum RMS Voltage	V_{RMS}	42	V
Maximum DC Blocking Voltage	V_{DC}	60	V
Maximum Average Forward Rectified Current	$I_F(AV)^{1)}$	3.0	A
	$I_F(AV)^{2)}$	5.0	
Peak Forward Surge Current 8.3ms 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	$^{\circ}\text{C}$

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

Parameter	Test Conditions	Symbol	Value	Unit
Instantaneous Forward Voltage	$I_F=1A, T_A=25^{\circ}\text{C}$	V_F	Max:0.50	V
	$I_F=5A, T_A=25^{\circ}\text{C}$		Max:0.65	
	$I_F=5A, T_A=125^{\circ}\text{C}$		Typ:0.60	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^{\circ}\text{C}$	I_R	0.5	mA
	$T_A=125^{\circ}\text{C}$		20	
Typical Junction Capacitance	4.0V, 1 MHz	C_J	220	pF
Typical Thermal Resistance ²⁾	Juntion to Ambient	$R_{\theta JA}$	45	$^{\circ}\text{C}/\text{W}$
	Juntion to Case	$R_{\theta JC}$	25	
	Juntion to Lead	$R_{\theta JL}$	20	

Notes: 1) Mounted on pcb with 8.0×8.0mm copper pads

2) The thermal resistance from junction to ambient,case or lead ,mounted on pcb with 30.0×30.0mm copper pads

Typical Characteristics Curves

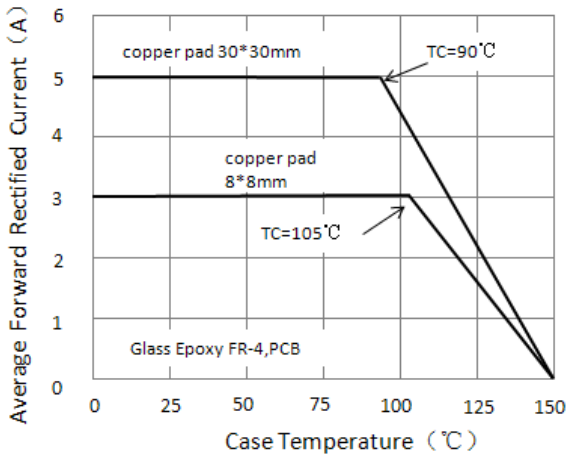


Figure 1. Forward Current Derating Curve

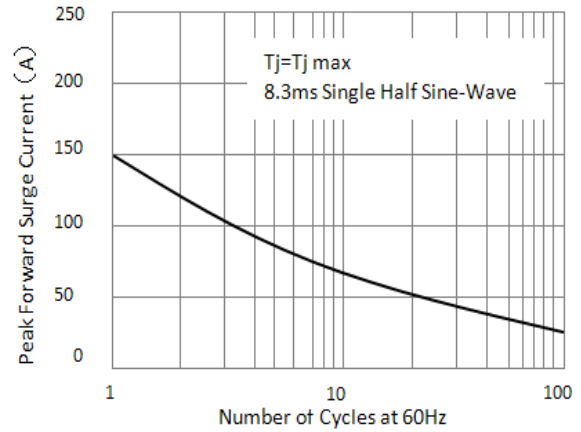


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

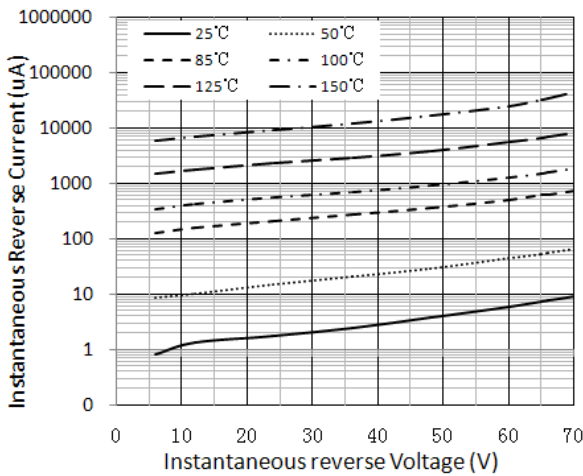


Figure 3. Typical Reverse Characteristics

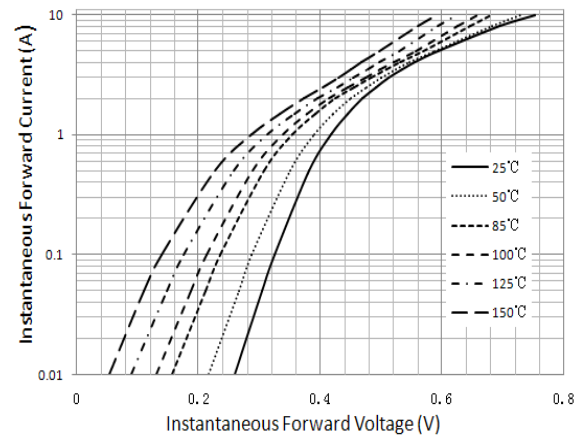


Figure 4. Typical Instantaneous Forward Characteristics

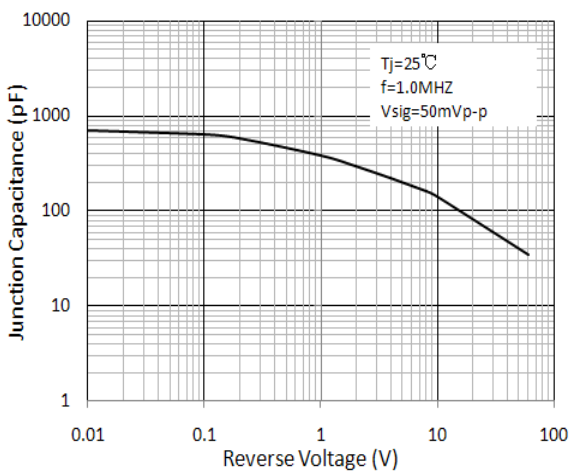
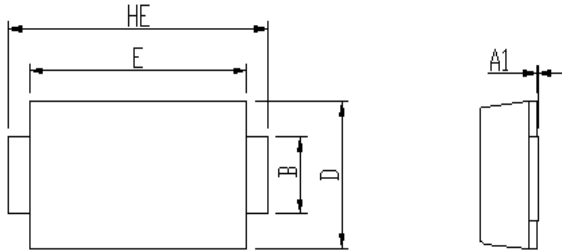
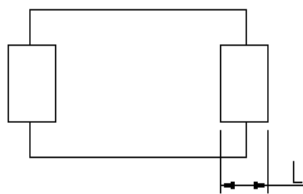
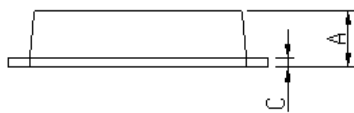


Figure 5. Typical Junction Capacitance

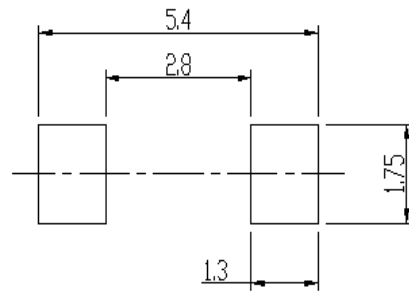
Package Outline Dimensions



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

