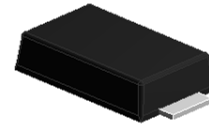


Features

- 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



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	LS545	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	45	V
Maximum RMS voltage	V _{RMS}	31.5	V
Maximum DC blocking voltage	V _{DC}	45	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 sine-wave superimposed on rated load	IFSM	150	A
Operating junction and storage temperature range	T _J , T _{STG}	- 55 to + 125	°C

ELECTRICAL CHARACTERISTICS (TA = 25 °C unless otherwise noted)						
PARAMETER	TEST CONDITIONS	SYMBOL	MIN	TYP	MAX	UNIT
Instantaneous forward voltage	IF=1A, Tj=25	VF	-	0.35	-	Volts
	IF=2A, Tj=25		-	0.38	-	
	IF=3A, Tj=25		-	0.40	-	
	IF=5A, Tj=25		-	0.44	0.46	
	IF=3A, Tj=125		-	0.30	-	
	IF=5A, Tj=125		-	0.36	-	
Instantaneous reverse current	VR=36V TA=25	IR	-	39	-	µA
	VR=45V TA=25		-	120	200	mA
	VR=45V TA=125		-	38	60	
Typical junction capacitance	4.0 V, 1 MHz	C _J		300		pF
Typical thermal resistance	junction to mount	R _{θJM} ¹⁾		26		°C/W

Note1):Mounted on PCB with 8.0x8.0mm copper pads,2 OZ,FR4 PCB;

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

RATINGS AND CHARACTERISTICS CURVES

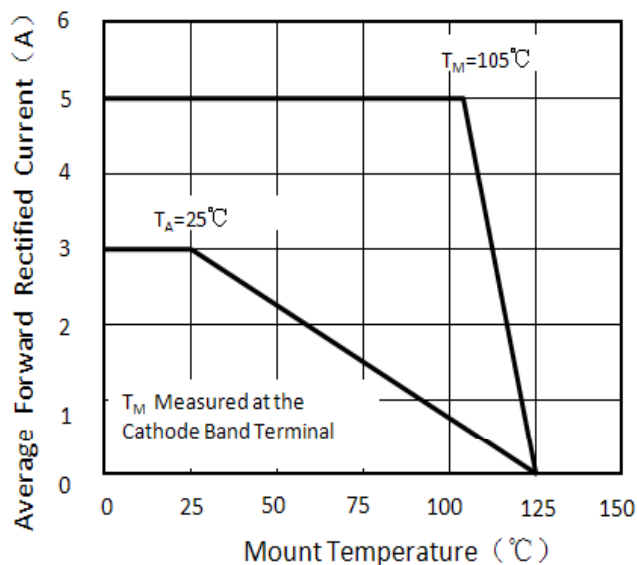


Figure 1. Forward Current Derating Curve

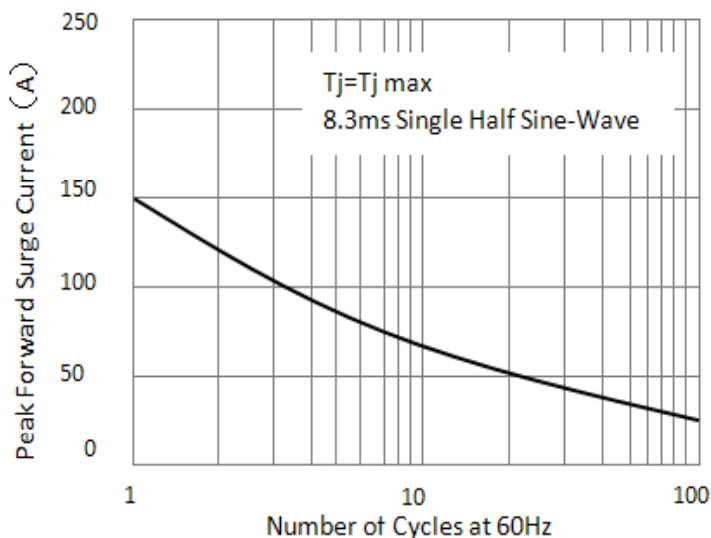


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

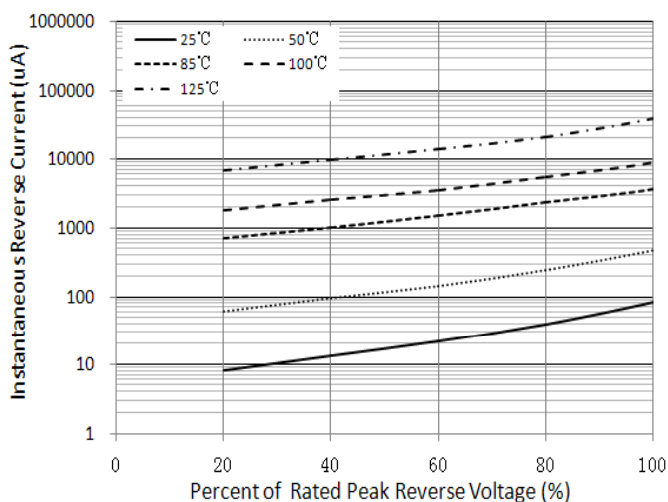


Figure 3. Typical Reverse Characteristics

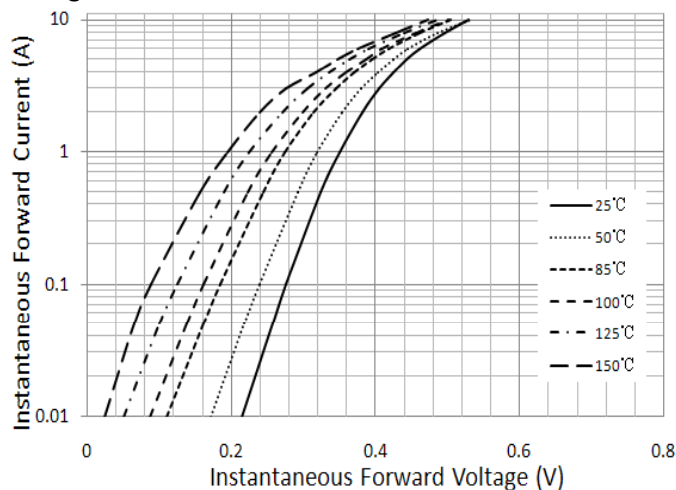


Figure 4. Typical Instantaneous Forward Characteristics

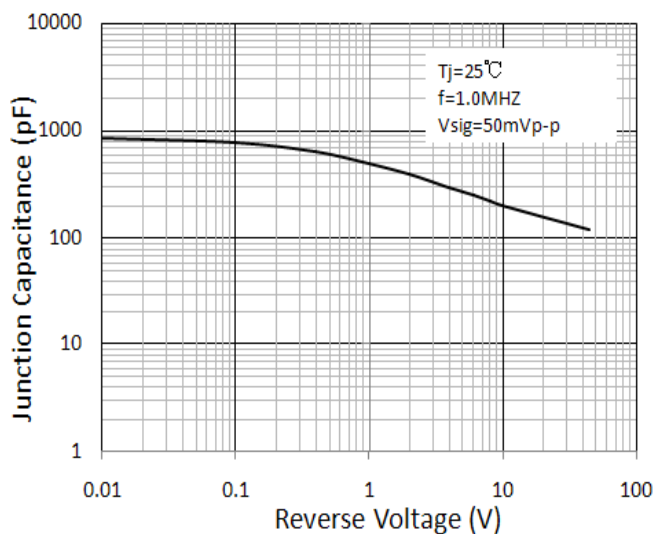
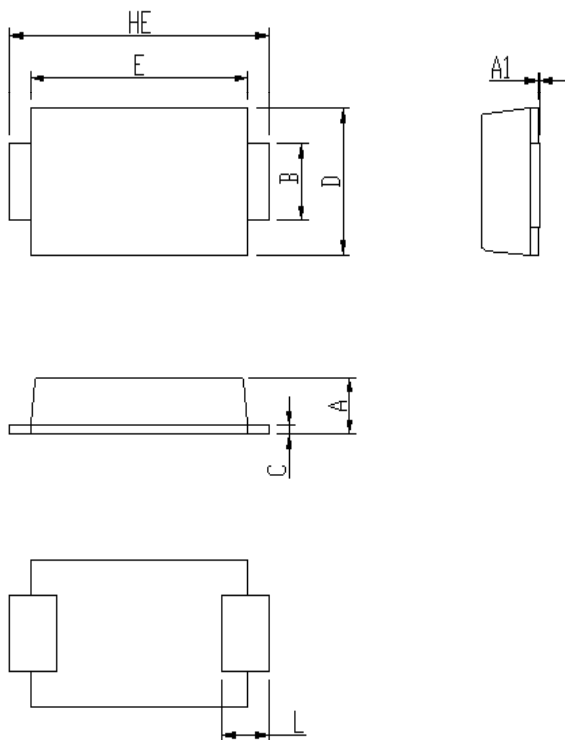


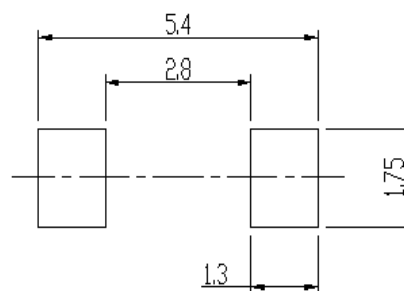
Figure 5. Typical Junction Capacitance

PACKAGE OUTLINE DIMENSIONS (in 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:

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

Tape & Reel Specification

