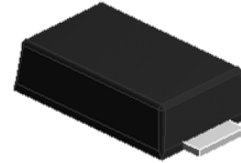


Features

- 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	LS37	LS38	LS39	LS3B	Unit
Maximum repetitive peak reverse voltage	VRRM	70	80	90	100	V
Maximum RMS voltage	VRMS	49	56	63	70	V
Maximum DC blocking voltage	VDC	70	70	70	70	V
Maximum average forward rectified current at TL (See Fig.1)	IF(AV)	3.0				A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	100				A
Operating junction and storage temperature range	TJ, TSTG	- 55 to + 150				°C

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

Parameter	Test Conditions	Symbol	LS37	LS38	LS39	LS3B	Unit
Instantaneous forward voltage	IF=3A, TA=25℃	VF	Max:0.80				Volts
	IF=3A, TA=125℃		Typ:0.60				
Maximum DC reverse current at rated DC blocking voltage	TA=25℃	IR	500				uA
	TA=125℃		100				mA
Typical junction capacitance	4.0 V, 1 MHz	C _J	234				pF
Typical thermal resistance	junction to lead	R _{θJL} ¹⁾	20				℃/W

Note1: Thermal resistance from junction to lead, mounted on PCB with 8.0×8.0mm copper pads

Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

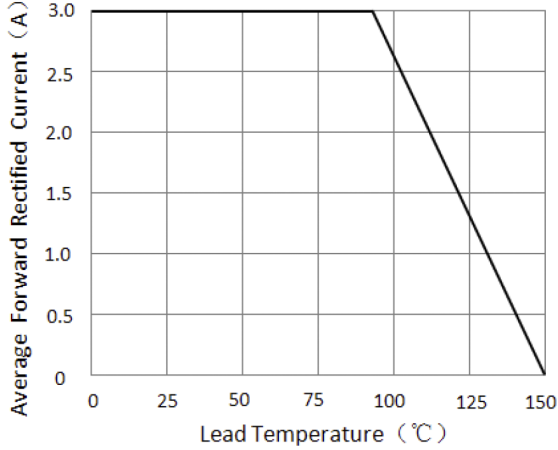


Figure 1. Forward Current Derating Curve

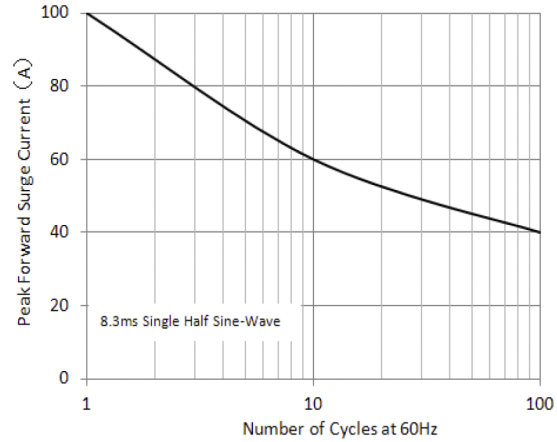


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

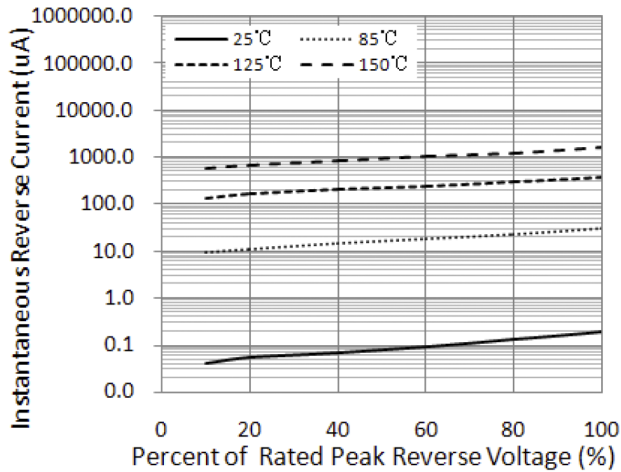


Figure 3. Typical Reverse Characteristics

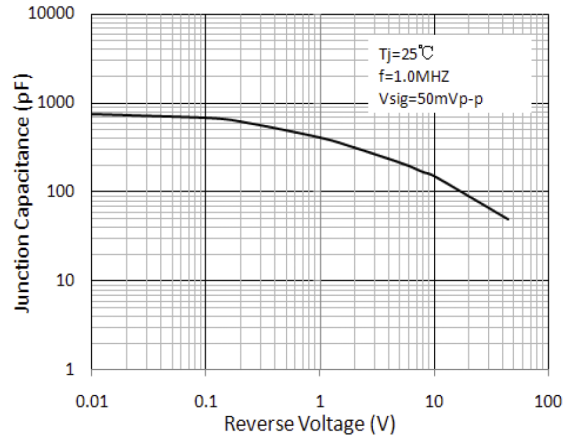


Figure 4. Typical Junction Capacitance

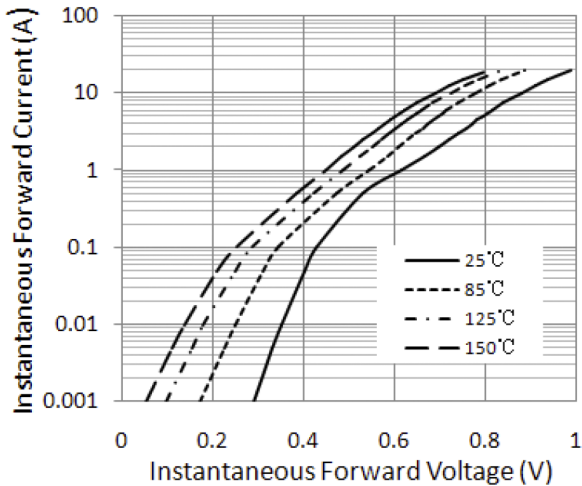
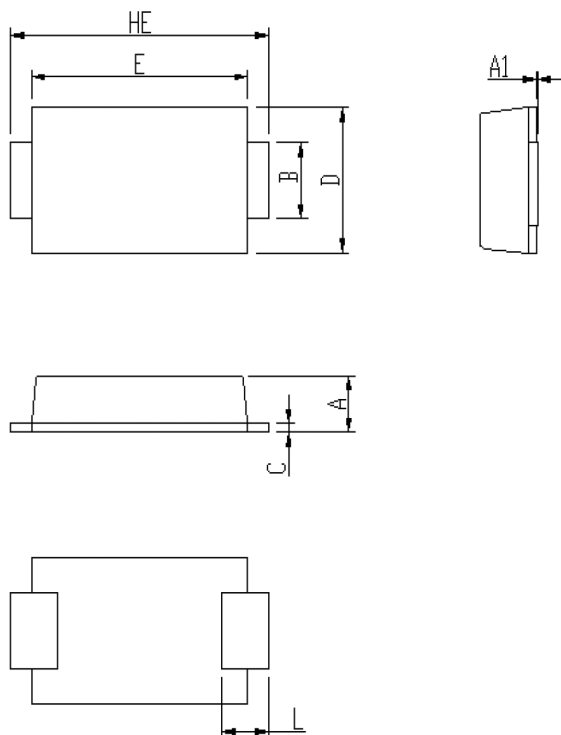


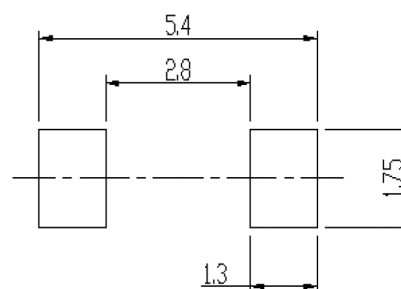
Figure 5. Typical Instantaneous Forward Characteristics

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	0.7	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

