GOOD-ARK
SEMICONDUCTOR

LS54

Surface Mount Schottky Rectifier
Reverse Voltage 40V Forward Current 5A

Features

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

RoHS COMPLIANT

Package: eSGB(SMAF)

Applications

For uses in low voltage, high freqency inverters, free wheeling and polarity protection applications.

Maximum Ratings (T_A = 25°C unless otherwise noted)

Parameter	Symbol	LS54	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Maximum RMS Voltage	V_{RMS}	28	V
Maximum DC Blockingg Voltage	V_{DC}	40	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	5.0	A
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	LS54	Unit
Instantaneous Forward Voltage	I_F=5A, T_A=25°C	V_F	0.5	V
	I_F=5A, T_A=125°C		0.45	
Maximum DC Reverse Current @ rated DC Blocking Voltage	T_A=25°C	I_R	0.5	mA
	T_A=125°C		20	
Typical Junction Capacitance	4.0 V, 1 MHz	C_J	320	pF
Typical Thermal Resistance	Juntion to Lead	$R_{\theta JL}$	26	℃/W

Note 1) Thermal resistance mounted on PCB with 8.0×8.0mm copper pads

Ratings and Characteristics Curves (T_A = 25° C unlessotherwise noted)

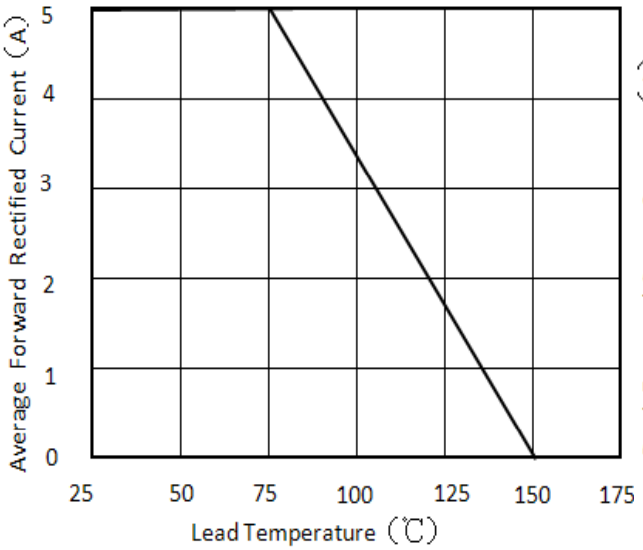

Figure 1.Forward Current Derating Curve

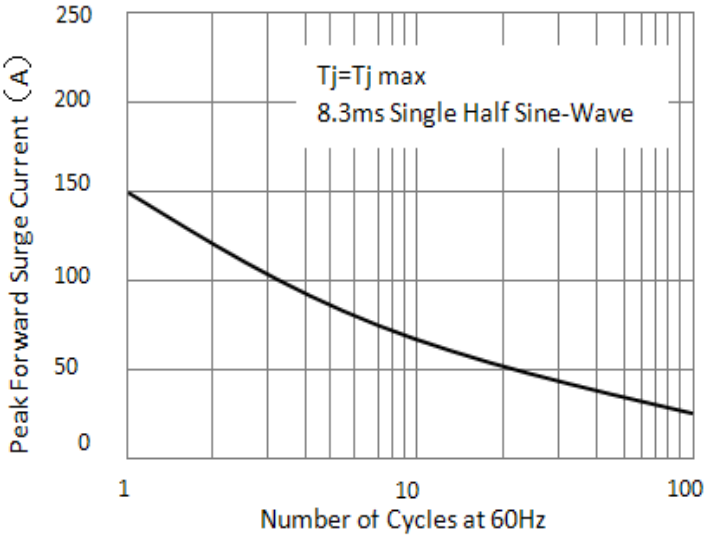

Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

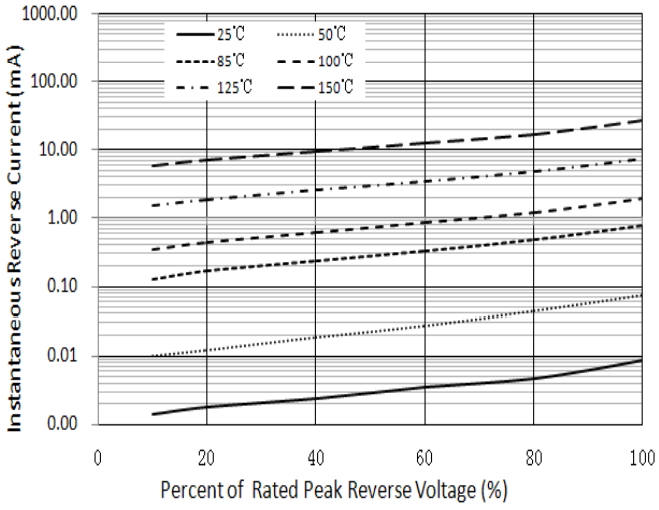

Figure 3. Typical Reverse Characteristics

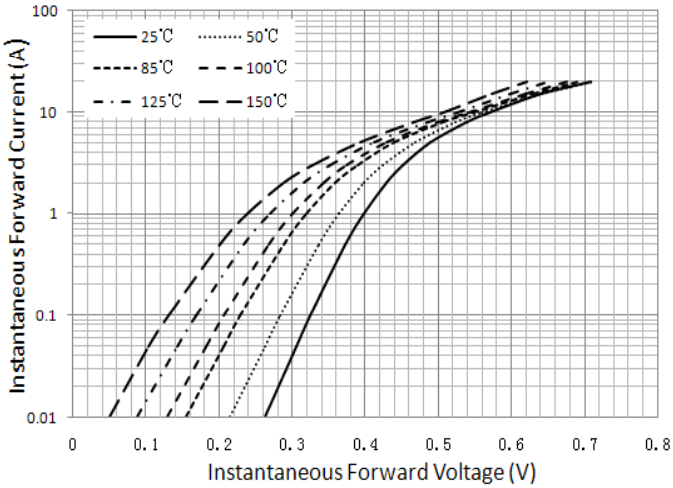

Figure 4. Typical Instantaneous Forward Characteristics

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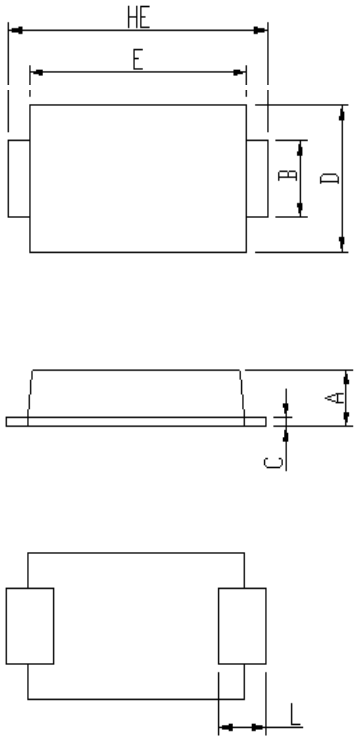
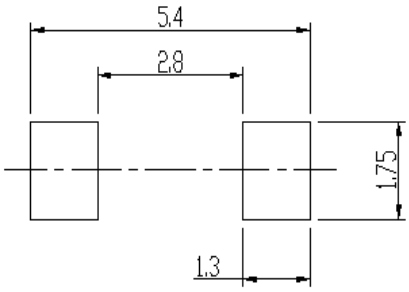
Package Outline Dimensions

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	0.8	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**