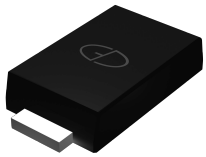
GOOD-ARK
SEMICONDUCTOR

LSL54/LSL545

Surface Mount Schottky Rectifier
Reverse Voltage 40-45V 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
- AEC-Q101 qualified
- 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	LSL54	LSL545	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	45	V
Maximum RMS Voltage	V_{RMS}	28	31.5	V
Maximum DC Blocking Voltage	V_{DC}	40	45	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$ 1)	5.0		A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	I_{FSM}	150		A
Rating for Fusing(t＜8.3ms)	I^2t	93.8		A^2sec
Operating Junction and Storage Temperature Range	T_J, T_{STG}	- 55 to +125		°C

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

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Instantaneous Forward Voltage	I_F=1A, T_A=25°C	V_F	-	0.35	-	V
	I_F=2A, T_A=25°C		-	0.38	-	
	I_F=3A, T_A=25°C		-	0.40	0.45	
	I_F=5A, T_A=25°C		-	0.44	0.50	
	I_F=5A, T_A=125°C		-	0.36	-	
Maximum DC Reverse Current at Rated DC Blocking Voltage	T_A=25°C	I_R	0.15			mA
	T_A=100°C		20			
Typical Junction Capacitance	4.0 V, 1 MHz	C_J	290			pF
Typical Thermal Resistance	Juntion to Lead	$R_{\theta JL}$ 1)	20			°C/W

Note 1) Mounted on PCB with 8.0×8.0mm copper pads, 2 OZ, FR4 PCB.

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

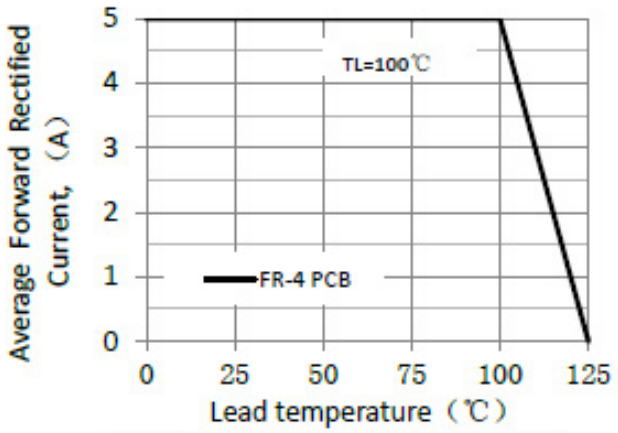


Figure 1.Forward Current Derating Curve

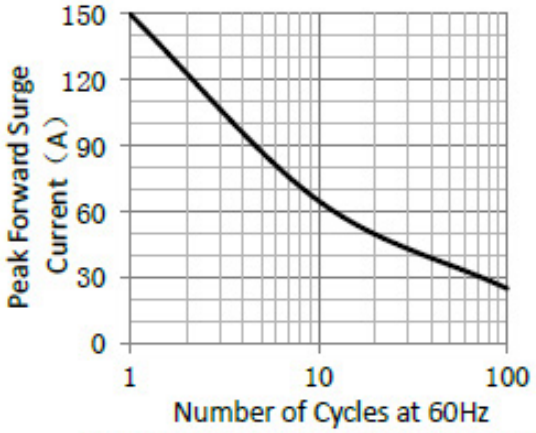


Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

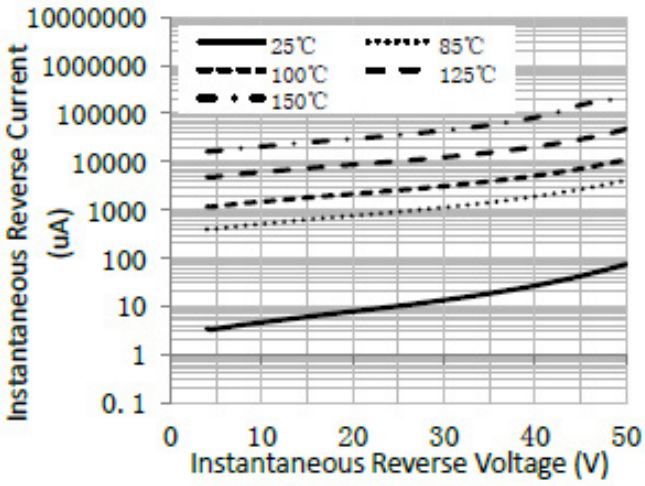


Figure 3. Typical Reverse Characteristics

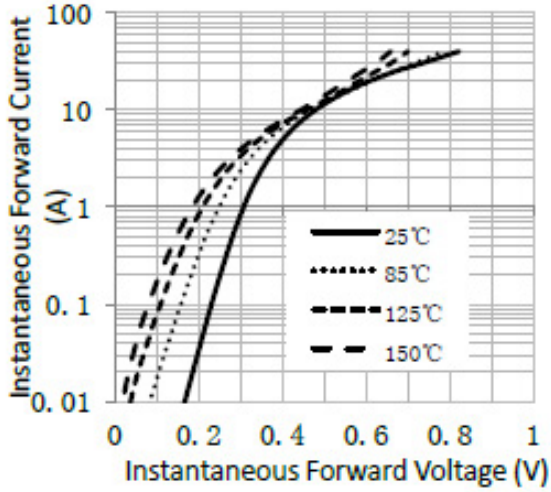


Figure 4. Typical Instantaneous Forward Characteristics

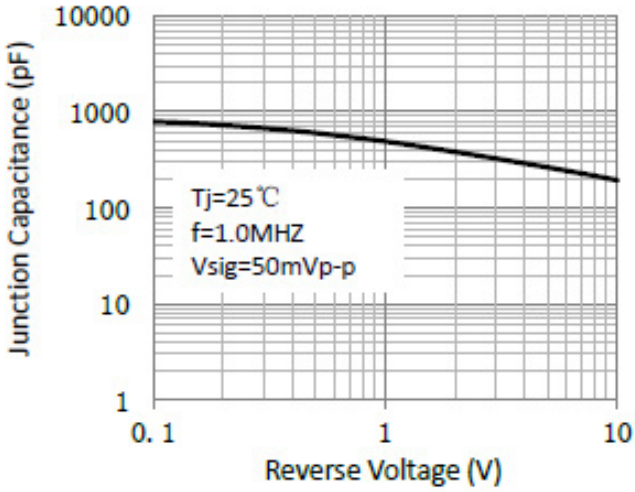


Figure 5. Typical Junction Capacitance

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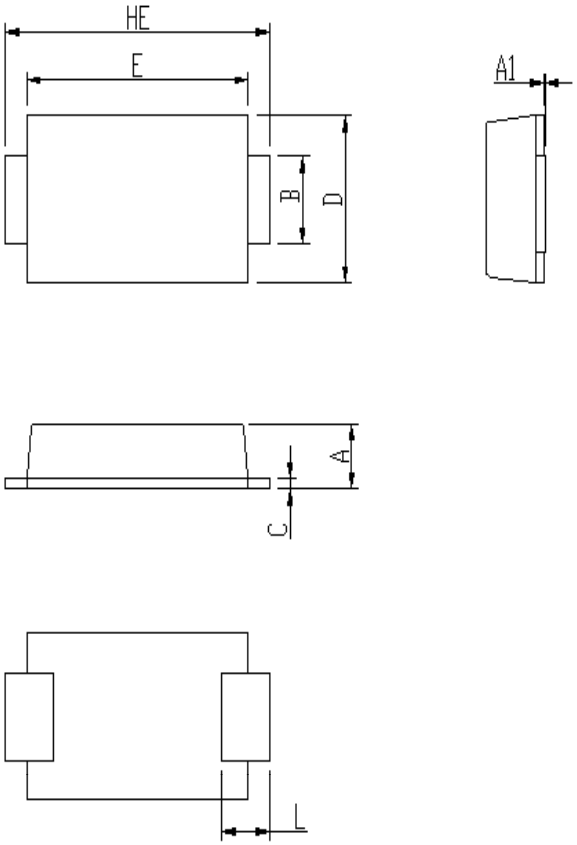
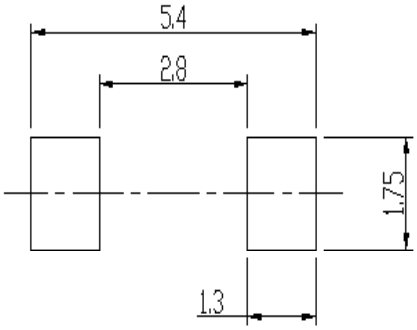
Package Outline Dimensions

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

Reel Size	Quantity/Reel	Quantity/Inner Box	Quantity/Carton
13"	10K	20K	180K

Tape & Reel Specification