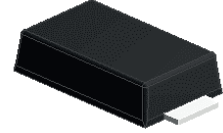


Features

- Low leakage current
- Schottky barrier rectifiers
- Low forward voltage drop
- Moisture sensitivity: level 1, per J-STD-020
- Halogen-free according to IEC 61249-2-21 definition
- High temperature soldering guaranteed: 260°C/10 seconds



RoHS
COMPLIANT



SMAF

Applications

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

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)}	5		A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	120		A
Typical Thermal Resistance, Junction to Ambient ¹	R _{θJA}	85		°C/W
Typical Thermal Resistance, Junction to Case ¹	R _{θJC}	15		°C/W
Typical Thermal Resistance, Junction to Lead ¹	R _{θJL}	18		°C/W
Operating Junction Temperature Range	T _J	-55 to +150		°C
Storage Temperature Range	T _{STG}	-55 to +150		°C

Notes:

1. Mounted on copper pad area of 0.2 x 0.2" (5.0 x 5.0mm) to each terminal.

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

Parameter	Symbol	Test Conditions	Typ	Max	Unit
Forward Drop Voltage	V _F	I _F =1A, T _A =25°C	0.31	0.35	V
		I _F =2A, T _A =25°C	0.34	0.40	
		I _F =5A, T _A =25°C	0.40	0.45	
		I _F =5A, T _A =125°C	0.32	-	
Reverse Leakage Current @ V _R	I _R	T _J =25°C	0.3		mA
		T _J =125°C	100		
Typical Junction Capacitance	C _J	4.0V, 1MHz	420		pF

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

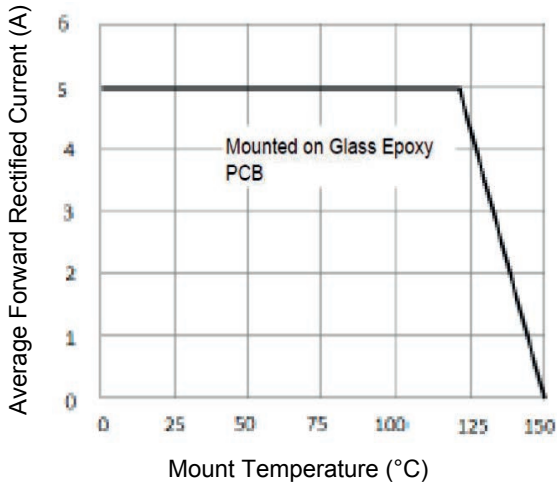


Figure 1. Forward Current Derating Curve

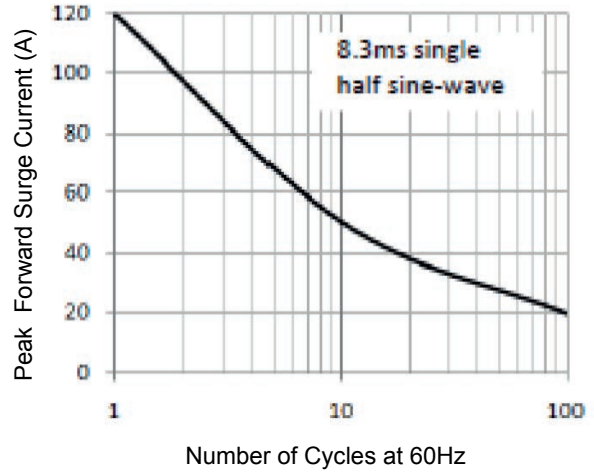


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

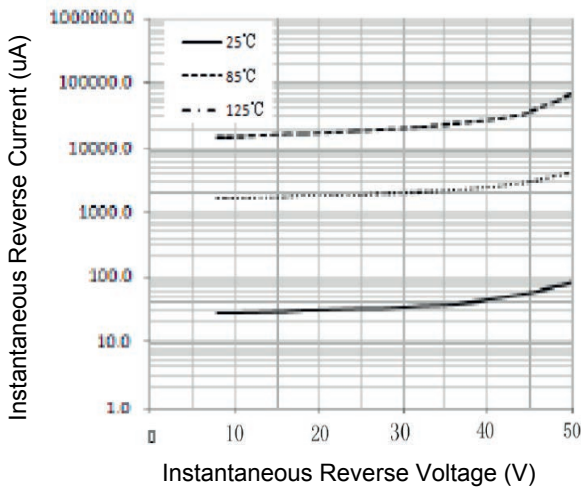


Figure 3. Typical Reverse Characteristics

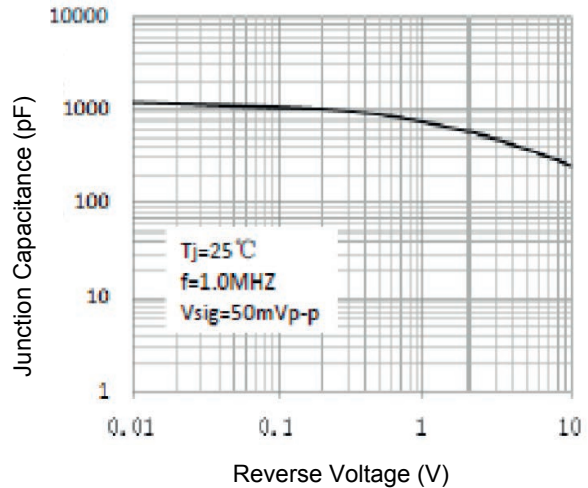


Figure 4. Typical Junction Capacitance

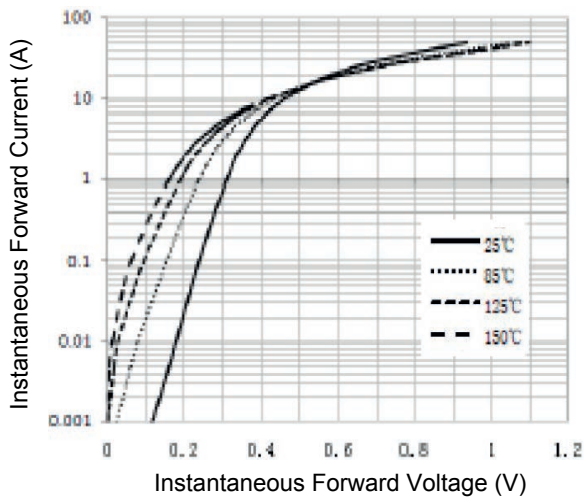
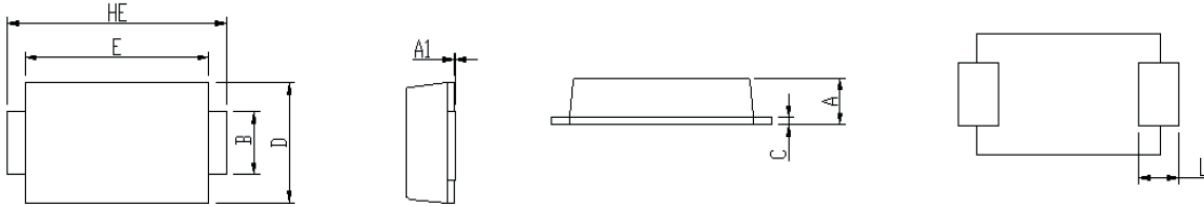


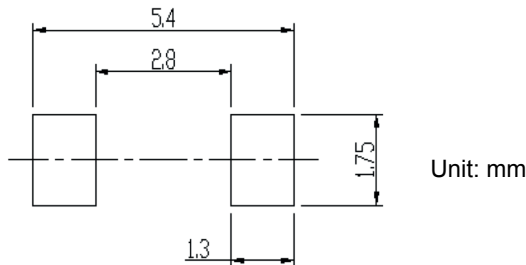
Figure 5. Typical Instantaneous Forward Characteristics

Package Outline Dimensions (SMAF)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.92	1.08	0.036	0.043
A1	0.00	0.10	0.000	0.004
B	1.25	1.45	0.049	0.057
C	0.10	0.25	0.004	0.010
D	2.60	2.80	0.102	0.110
E	4.10	4.30	0.161	0.169
L	0.70	1.10	0.028	0.043
HE	4.80	5.20	0.189	0.205

Recommended Pad Layout



Order Information

Device	Package	Marking	Carrier	Quantity
LSL54	SMAF	LSL54	Tape & Reel	10,000 Pcs / Reel
LSL545	SMAF	LSL545	Tape & Reel	10,000 Pcs / Reel