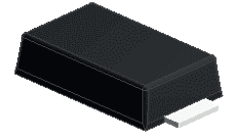


Features

- 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 (DO-221AC)

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	LSL52	LSL53	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	20	30	V
Maximum RMS Voltage	V _{RMS}	14	21	V
Maximum DC Blocking Voltage	V _{DC}	20	30	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}	70		A
Typical Thermal Resistance, Junction to Ambient	R _{θJA}	85		°C/W
Typical Thermal Resistance, Junction to Case	R _{θJC}	15		°C/W
Typical Thermal Resistance, Junction to Lead	R _{θJL}	18		°C/W
Operating Junction Temperature Range	T _J	-55 to +150		°C
Storage Temperature Range	T _{STG}	-55 to +150		°C

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

Parameter	Symbol	Test Conditions	Typ	Max	Unit
Forward Drop Voltage	V _F	I _F =3A, T _A =25°C	0.31	0.36	V
		I _F =5A, T _A =25°C	0.35	0.39	
		I _F =5A, T _A =100°C	0.29	0.32	
Reverse Leakage Current @ V _R	I _R	T _J =25°C	2.4	8	mA
		T _J =100°C	113	200	
Typical Junction Capacitance	C _J	4.0V, 1MHZ	335		pF

LSL52 thru LSL53

Schottky Barrier Rectifiers
 Reverse Voltage 20V-30V Forward Current 5A

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

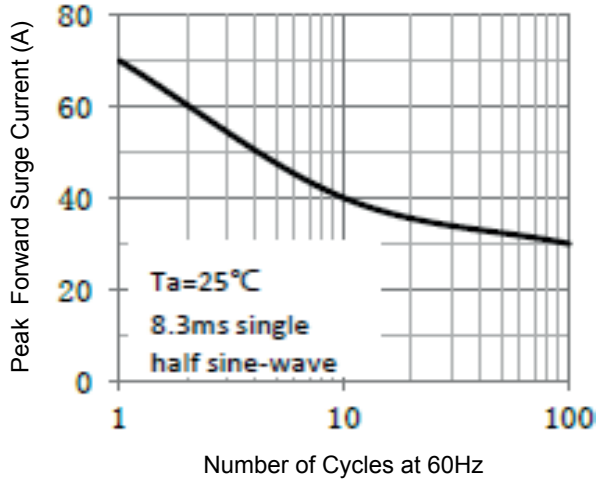


Figure 1. Maximum Non-Repetitive Peak Forward Surge Current

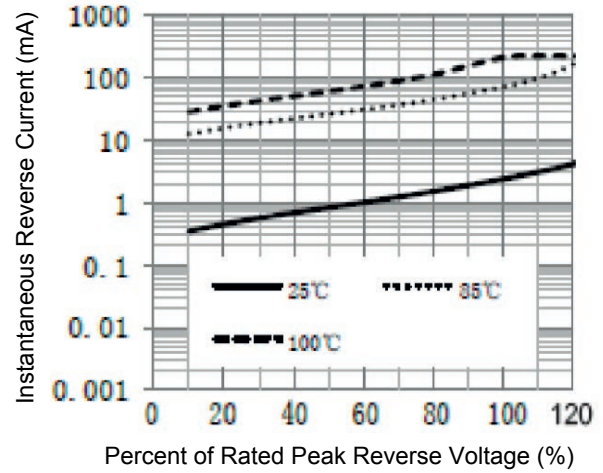


Figure 2. Typical Reverse Characteristics

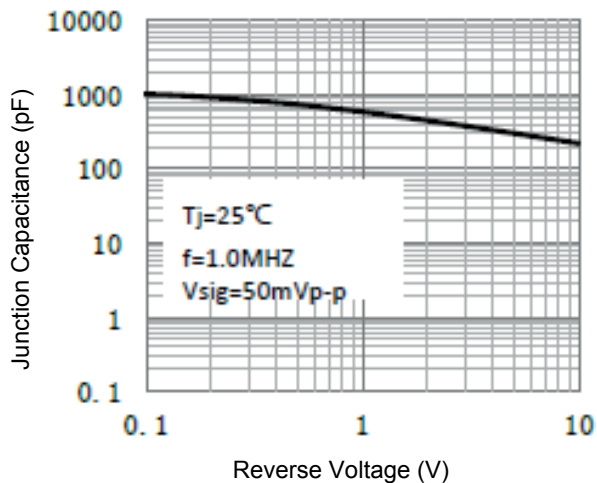


Figure 3. Typical Junction Capacitance

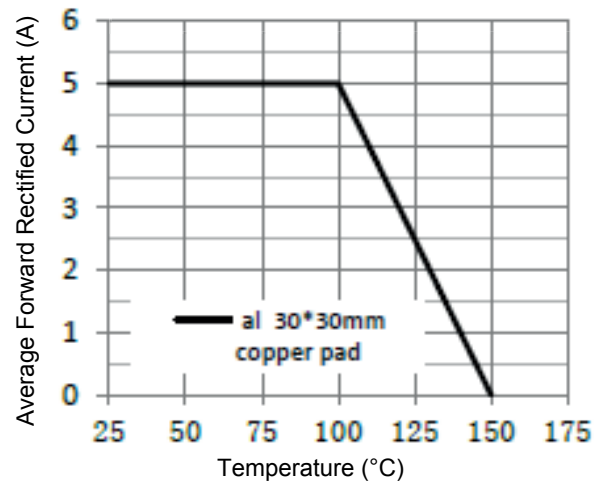


Figure 4. Forward Current Derating Curve

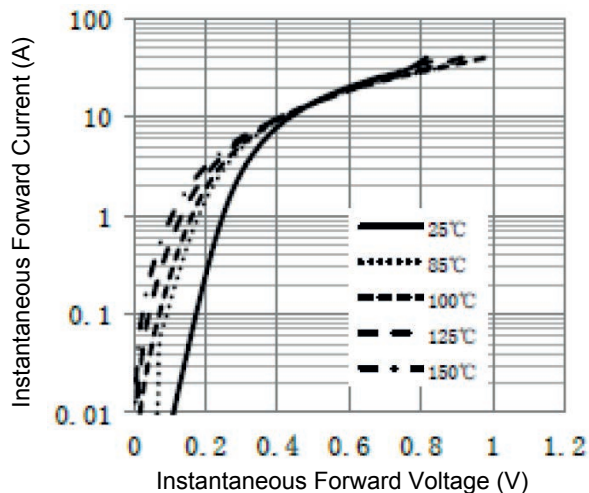
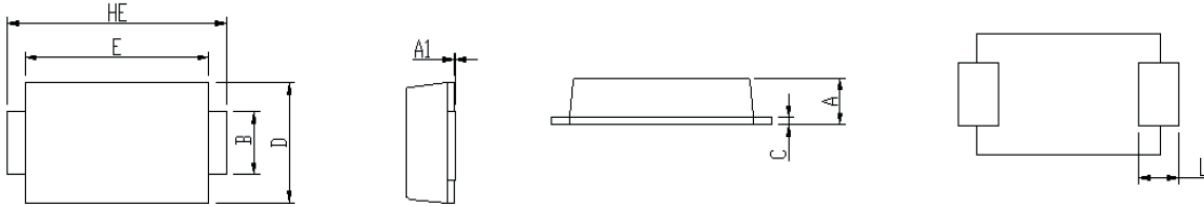


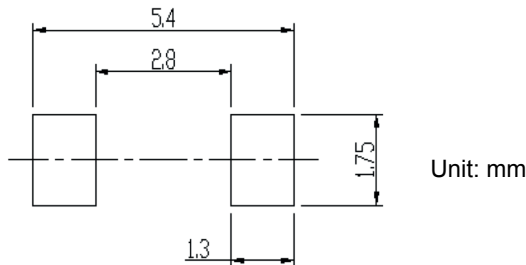
Figure 5. Typical Instantaneous Forward Characteristics

Package Outline Dimensions SMAF (DO-221AC)



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
LSL52	SMAF (DO-221AC)	LSL52	Tape & Reel	10,000 Pcs / Reel
LSL53	SMAF (DO-221AC)	LSL53	Tape & Reel	10,000 Pcs / Reel