

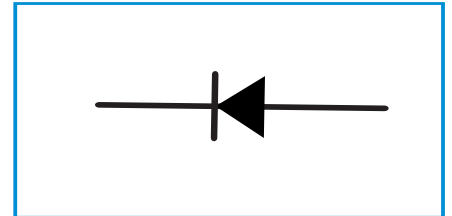
Surface Mount Schottky Barrier Rectifier

Features

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0



Functional Diagram



Mechanical Data

- Case: SMAF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Approx. Weight: 27mg / 0.00095oz

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

Parameter	Symbols	LT22F	LT24F	LT26F	LT28F	LT210F	LT212F	LT215F	LT220F	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	40	60	80	100	120	150	200	V
Maximum RMS voltage	V_{RMS}	14	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	2.0								A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	50								A
Max Instantaneous Forward Voltage at 2 A	V_F	0.55	0.70		0.85		0.95		V	
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Reverse Voltage $T_a = 100^\circ\text{C}$	I_R	0.5 5			0.3 3				mA	
Typical Junction Capacitance ⁽¹⁾	C_j	160	80						pF	
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$	80								°C/W
Operating Junction Temperature Range	T_j	-55 ~ +150								°C
Storage Temperature Range	T_{stg}	-55 ~ +150								°C

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Ratings and characteristics Curves

Fig.1 Forward Current Derating Curve

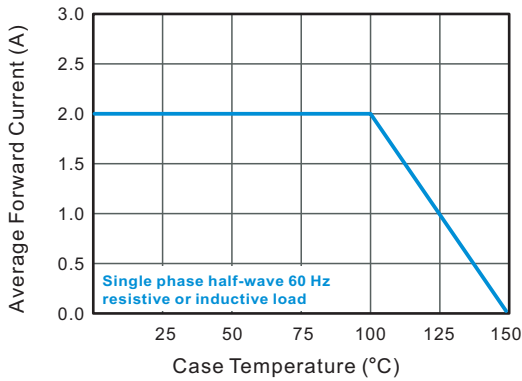


Fig.2 Typical Reverse Characteristics

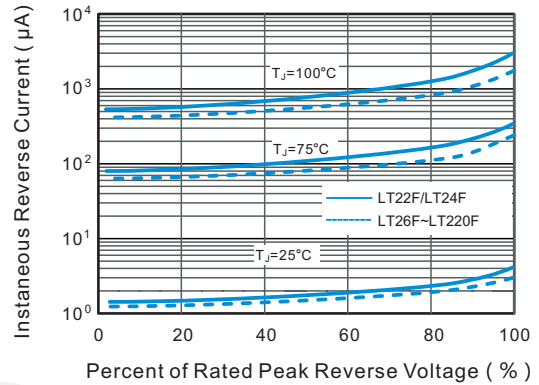


Fig.3 Typical Forward Characteristic

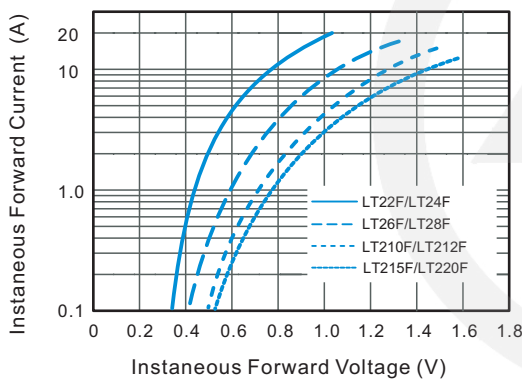


Fig.4 Typical Junction Capacitance

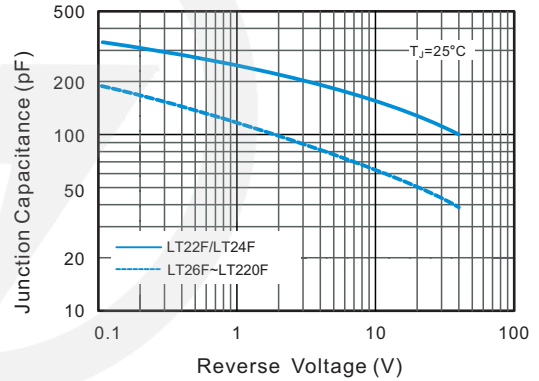


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

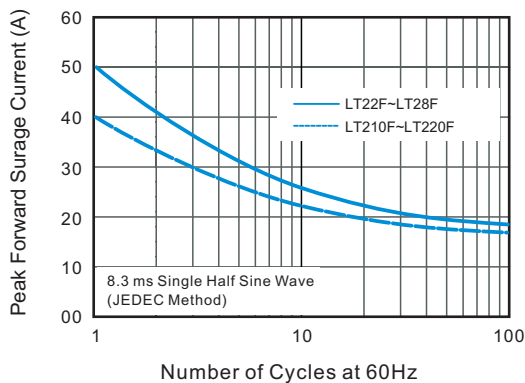
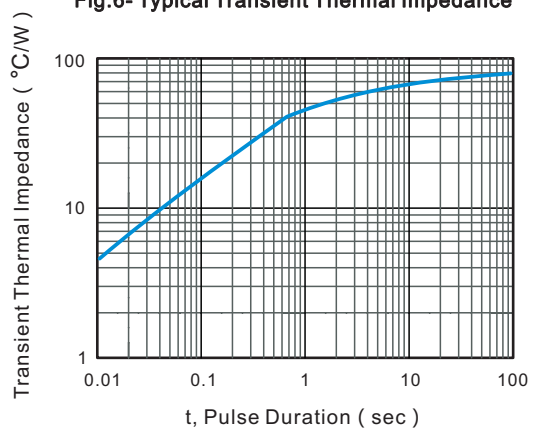
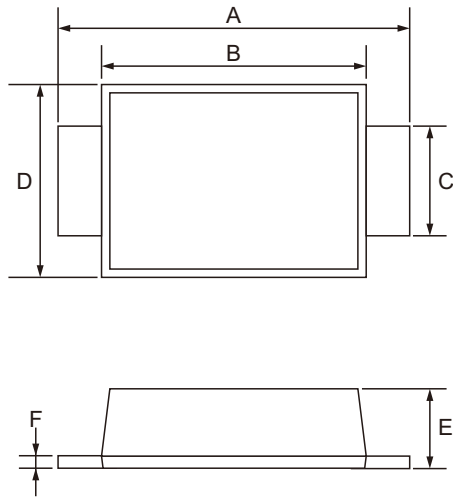


Fig.6- Typical Transient Thermal Impedance



SMAF Package Outline



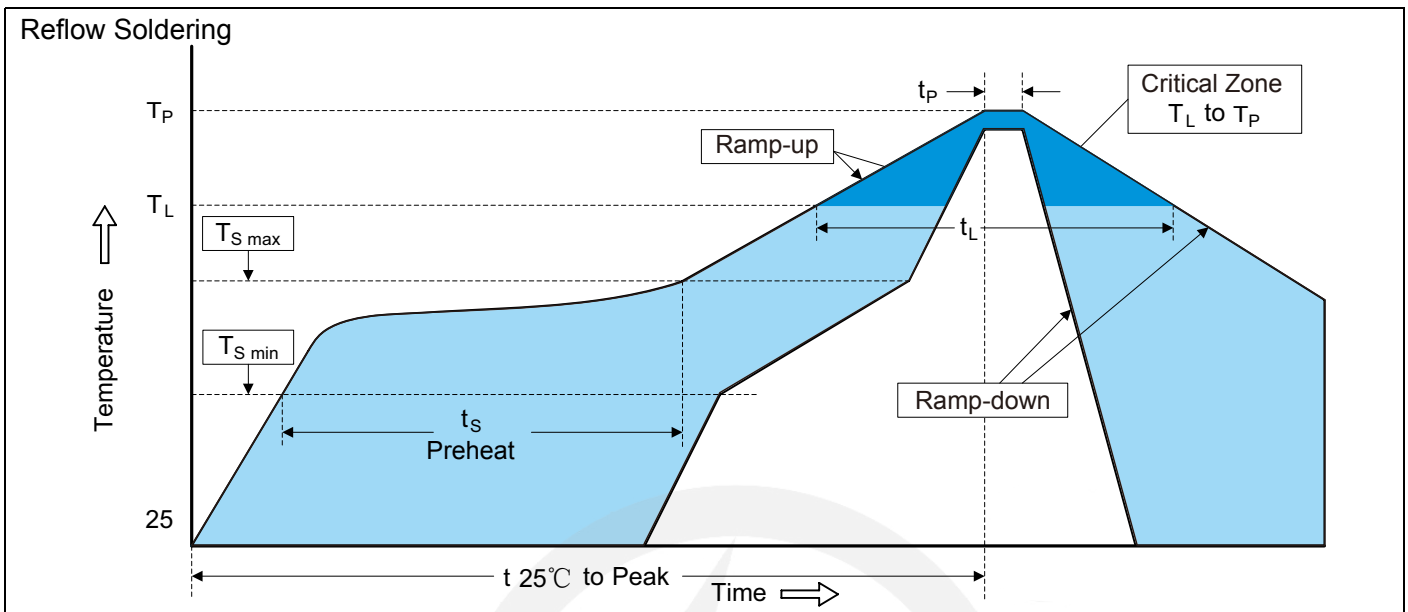
SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	4.40	4.90
B	3.30	3.70
C	1.30	1.60
D	2.40	2.70
E	0.90	1.30
F	0.12	0.20

Marking

Type number	Marking code
LT22F	S22
LT24F	S24
LT26F	S26
LT28F	S28
LT210F	S210
LT212F	S212
LT215F	S215
LT220F	S220



Recommended Soldering Conditions



Recommended Conditions

Profile Feature	Pb-Free Assembly
Average ramp-up rate (T _L to T _P)	3°C/second max.
Preheat	
-Temperature Min (T _{S min})	150°C
-Temperature Max (T _{S max})	200°C
-Time (min to max) (t _S)	60-180 seconds
T _{S max} to T _L	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
-Temperature (T _L)	217°C
-Time (t _L)	60-150 seconds
Peak Temperature (T _P)	260°C
Time within 5°C of actual Peak Temperature (t _P)	20-40 seconds
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

7" Reel



D2 Φ178.0±2.0

D3 Φ50.0Min.

D4 Φ13.0±0.5

W1 16.0±2.0

Quantity: 3000PCS