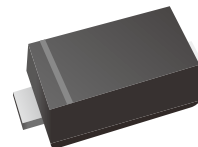


Surface Mount General Purpose Silicon

Features

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Lead free in comply with EU RoHS 2011/65/EU directives



Mechanical Data

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

Ordering Information

Part Number	Shipping	Reel
LTS2AF THRU LTS2MF-TR3	3000PCS Tape&Reel	7 inches
LTS2AF THRU LTS2MF-TR10	10000PCS Tape&Reel	13 inches

Maximum Ratings and Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	LTS2AF	LTS2BF	LTS2DF	LTS2GF	LTS2JF	LTS2KF	LTS2MF	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current@ Fig.1	$I_{F(AV)}$	2							A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	50							A
Maximum Instantaneous Forward Voltage at 2 A	V_F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_j = 25\text{ }^\circ\text{C}$ $T_j = 125\text{ }^\circ\text{C}$	I_R	5 100							μA
Typical Junction Capacitance ⁽¹⁾	C_j	20							pF
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	100 20 30							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150							$^\circ\text{C}$

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

(2) P.C.B. mounted with 0.2"X 0.2" (5 mm X 5 mm) copper pad areas.

Characteristics Curve

Fig.1 Average Rectified Output Current Derating Curve

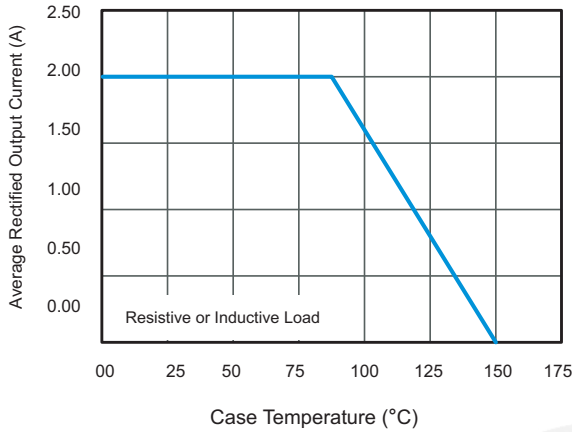


Fig.2 Typical Instaneous Reverse Characteristics

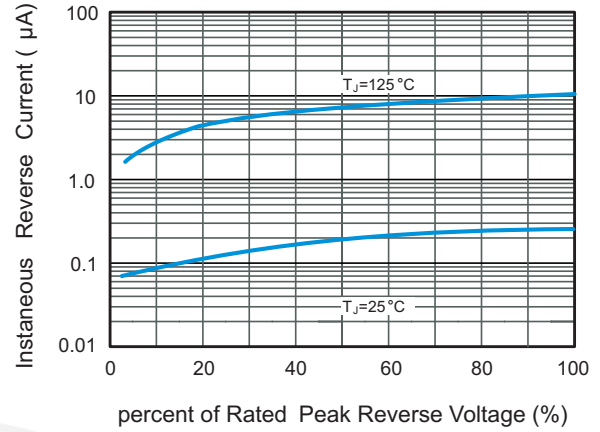


Fig.3 Typical Instaneous Forward Characteristics

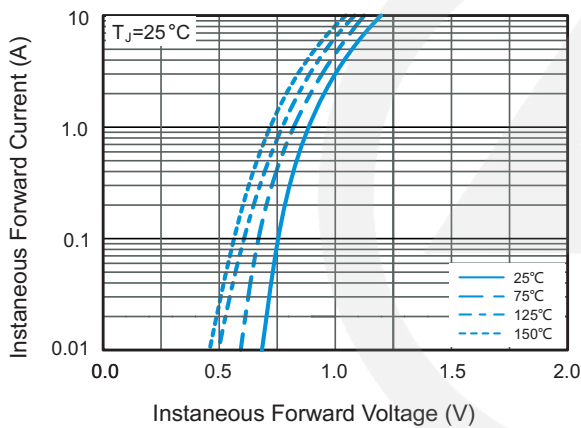


Fig.4 Typical Junction Capacitance

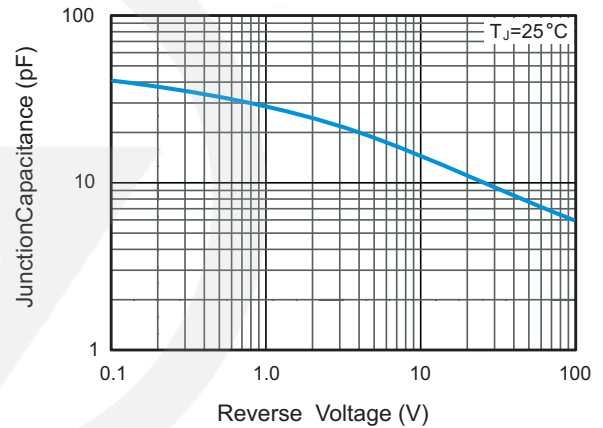
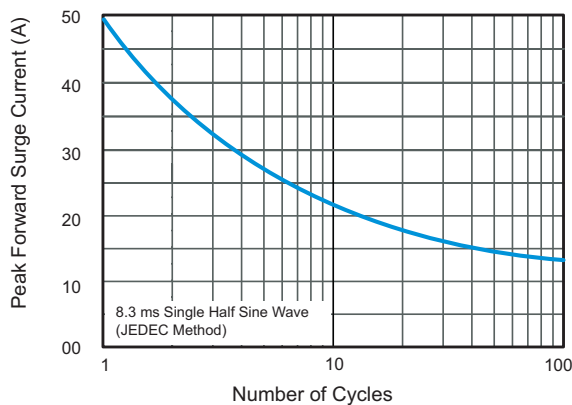
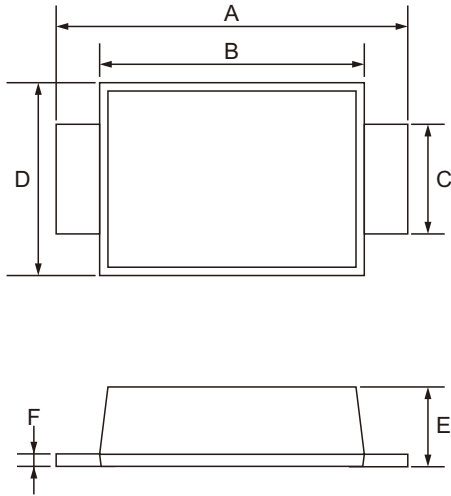


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

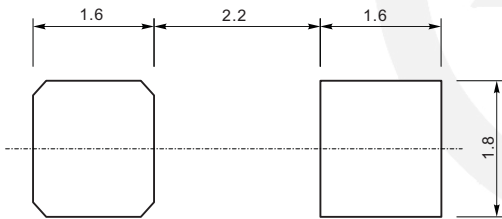


SMAF Package Outline



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	1.20
F	0.12	0.20

SMAF Suggested Pad Layout



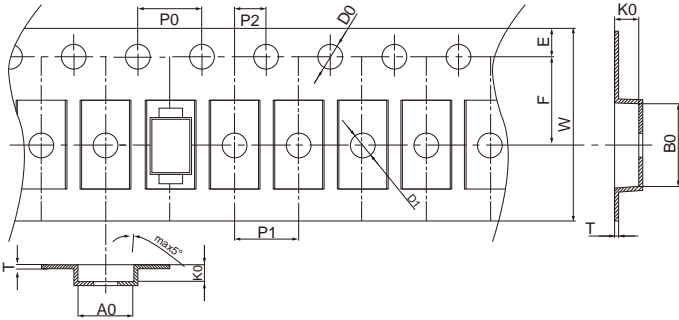
Note:
 1. Controlling dimension: in millimeters.
 2. General tolerance: $\pm 0.05\text{mm}$
 3. The pad layout is for reference purpose only.

Marking

Type number	Marking code
LTS2AF	S2A
LTS2BF	S2B
LTS2DF	S2D
LTS2GF	S2G
LTS2JF	S2J
LTS2KF	S2K
LTS2MF	S2M

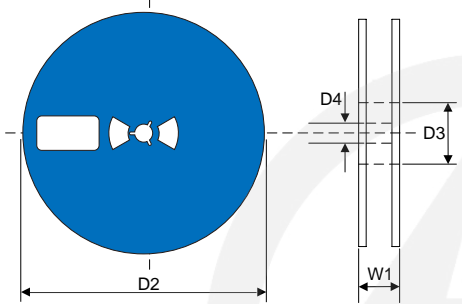
Carrier Tape Dimensions

Unit : mm

			
Symbol	Spec	Symbol	Spec
A0	2.93±0.10	T	0.20±0.03
B0	5.33±0.10	E	1.73±0.10
K0	1.33±0.10	F	5.50±0.10
P0	4.00±0.10	D0	1.55±0.05
P1	4.00±0.10	D1	1.50±0.05
P2	2.00±0.10	W	12.0±0.30

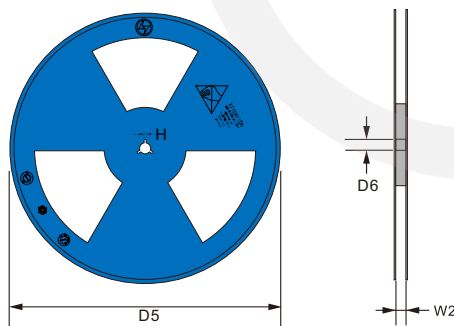
Reel Dimensions

Unit : mm

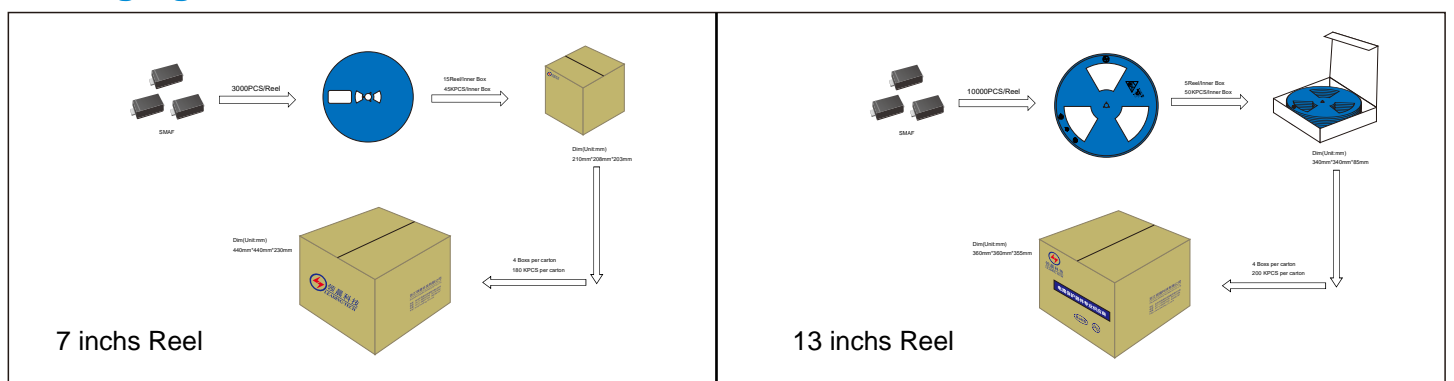
<p>7" Reel</p> 		D2	Φ178.0±2.0
		D3	Φ50.0
		D4	13.0±0.5
		W1	12±0.5
		Quantity: 3000PCS	

Reel Dimensions

Unit : mm

<p>13" Reel</p> 		D5	Φ330.0±2.0
		D6	Φ13.5±0.5
		H	2.5±1.0
		W2	12±2.0
		Quantity: 10000PCS	

Packaging





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.

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Version Update information

Series NO.	Enactment/Revision Date	Effective Date	Version	Revision content	Revision Reason	Revision Person	Note
01	2024.03.12	2024.03.12	3.0	New File	/	Ding	
02	2025.04.24	2025.04.24	3.1	Update packaging information	/	Ding	