



TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,
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Product Specifications Approval Sheet

Product Description: SAW Filter 869.225 MHz (BW 1.85MHz) SMD 2.0X1.6 mm

TST Part No.: TA1809A

Customer Part No.:

Customer signature required

Company: _____

Division: _____

Approved by : _____

Date: _____

Checked by: _____ Michael Yang 

Approval by: _____ Bob Chau 

Date: _____ 2015/3/12

1. Customer signed back is required before TST can proceed with sample build and receive orders.
2. Orders received without customer signed back will be regarded as agreement on the specifications.
3. Any specifications changes must be approved upon by both parties and a new revision of specifications shall be released to reflect the changes.



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SAW Filter 869.225MHz

MODEL NO.:TA1809A

REV. NO.:1.0

A. MAXIMUM RATING:

1. Input Power Level: 20 dBm
2. DC Voltage : 0V
3. Operating Temperature: -40°C to +85°C
4. Storage Temperature: -40°C to +85°C

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic Sensitive Device (ESD)

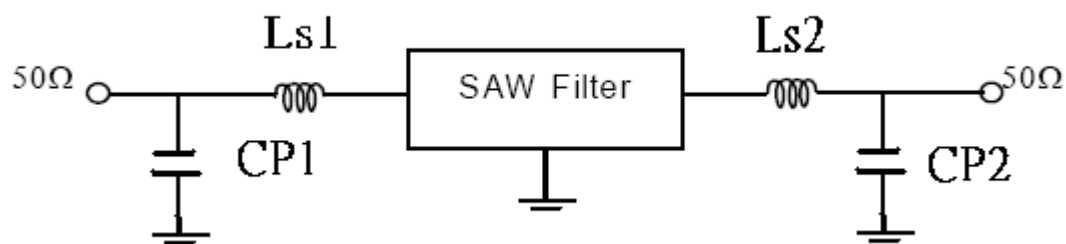
B. ELECTRICAL CHARACTERISTICS:

Terminating source/load impedance (single) : $Z_s = 50 \Omega / Z_L = 50 \Omega$

Item	Unit	Min	Type.	Max
Center Frequency F_c	MHz	-	869.225	-
Minimum Insertion Loss α_{min}				
Incl. Loss in matching elements (868.3 ~ 870.15 MHz)	dB		2.7	3.4
Excl. Loss in matching elements (868.3 ~ 870.15 MHz)	dB		1.9	2.6
Pass Band (Relative to α_{min})				
(868.3 ~ 870.15 MHz)			1.1	2.5
Relative Attenuation (Relative to α_{min}) α_{rel}				
10 ~ 350 MHz	dB	50	55	
350 ~ 600 MHz	dB	35	40	
600 ~ 846 MHz	dB	35	40	
846 ~ 862 MHz	dB	15	20	
880 ~ 889 MHz	dB	30	35	
889 ~ 1000 MHz	dB	35	40	
1000 ~ 1700 MHz	dB	52	57	
1700 ~ 2500 MHz	dB	42	47	
Package size	mm	SMD 3x3		
Impedance for pass band matching)				
Input: $Z_{IN} = L_{s1}/C_{p1}$	nH		54/2	
Output: $Z_{OUT} = L_{s2}/C_{p2}$	nH		48/2	

C.. TEST CIRCUIT:

The matching circuit is



Ls1=54nH ; Ls2=48nH;Cp1=2 pF ; Cp2=2pF

D. Frequency Characteristics :

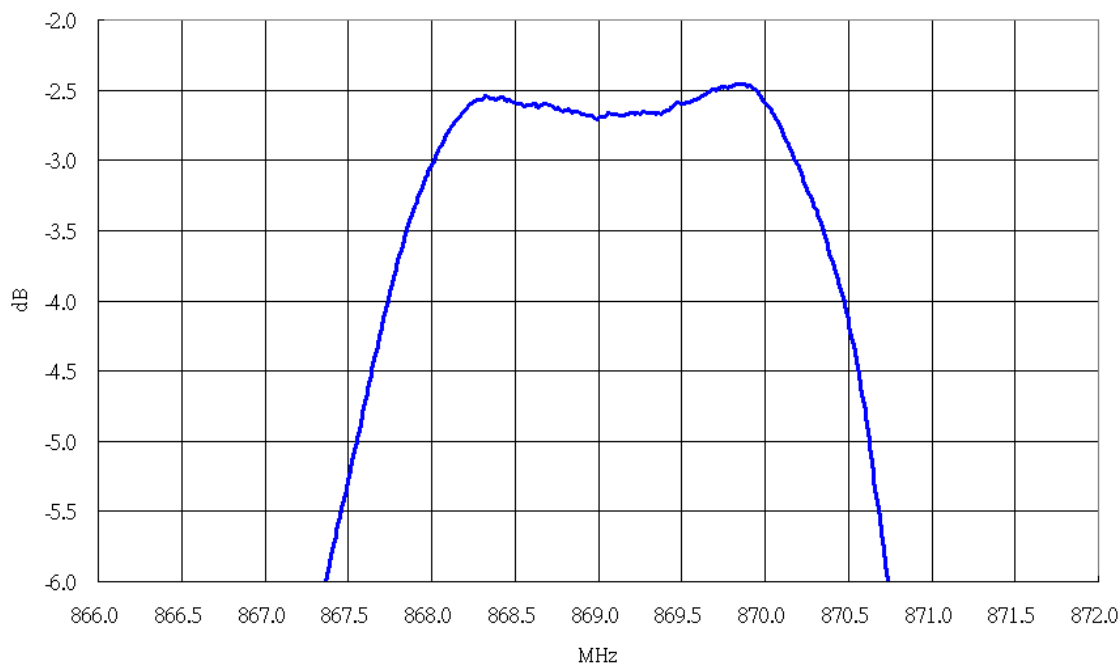
S21 response: span 20MHz



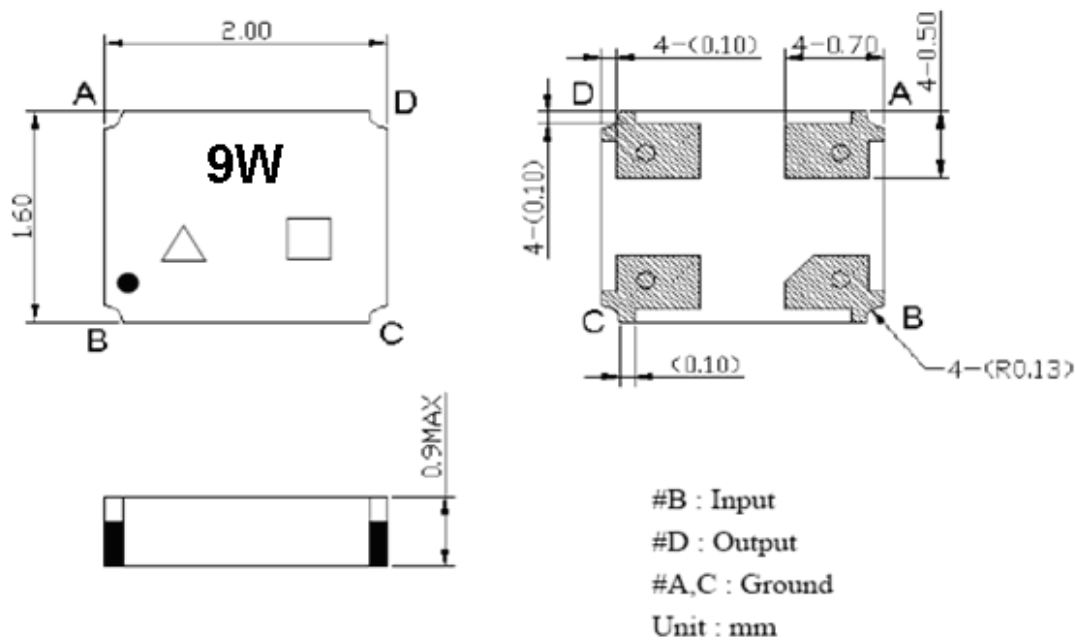
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S21 response: span 5MHz

TA1809F



E.OUTLINE DRAWING:



□ : Date code : See the table

WK	01	02	...	26	27	28	...	52
Code	A	B	...	Z	a	b	...	z

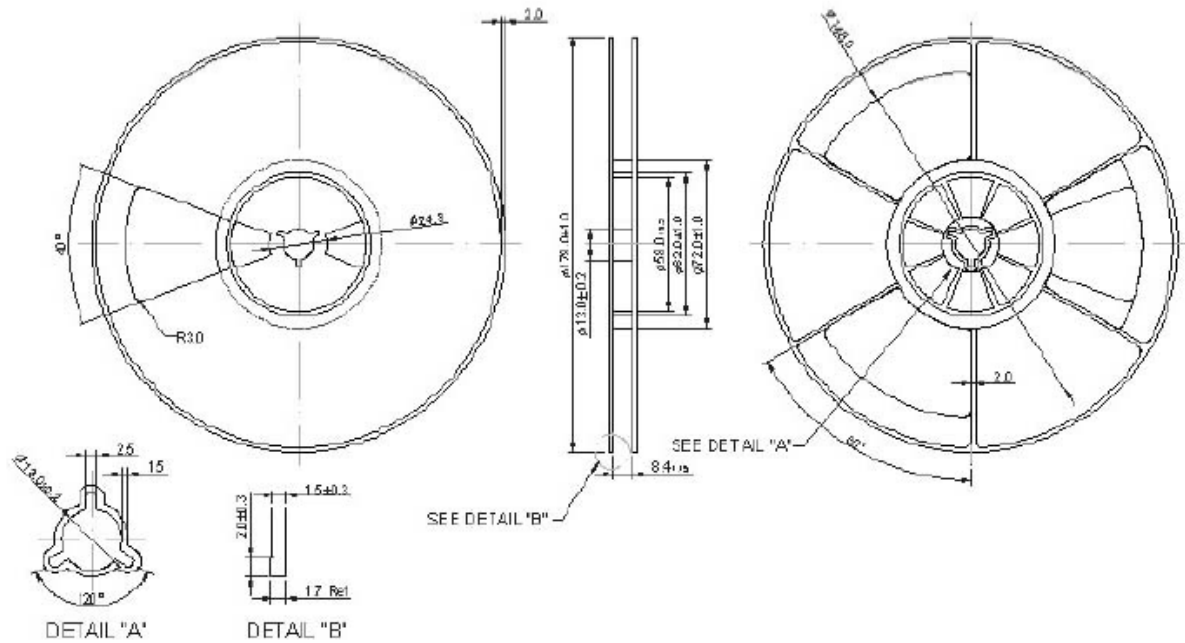
△ : Year code : See the table

Year	2008	2009	2010	2011	...	2019	2020
Code	8	9	0	1	...	9	0

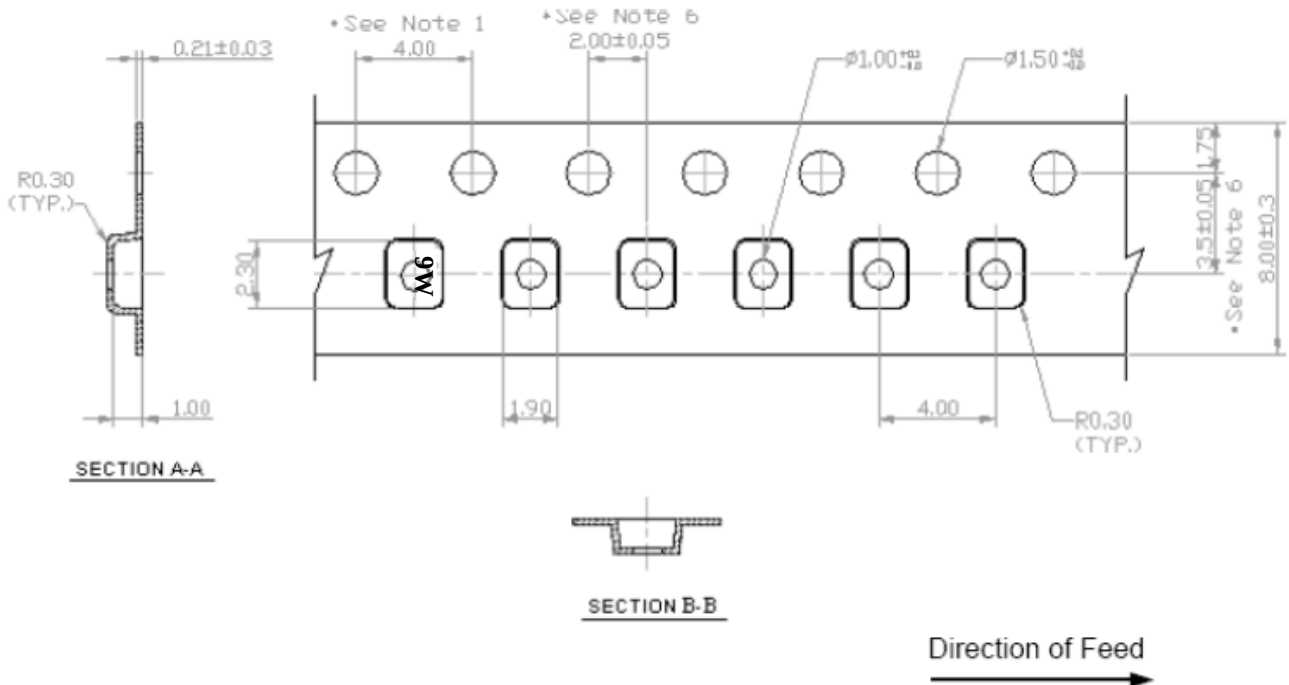
F. PACKING:

1. REEL DIMENSION

(Please refer to FR-75D10 for packing quantity)



2. TAPE DIMENSION



G. RECOMMENDED REFLOW PROFILE :

1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 245~260°C peak (min. 10sec).
4. Time : 2 times.

