



TAI-SAW TECHNOLOGY CO., LTD.

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Product Specifications Approval Sheet

Product Name: SAW IF Filter 213.3 MHz (package 5.0mm x 7.0 mm)

TST Parts No.: TB0939A

Customer Parts No.: _____

Customer signature required
Company: _____
Division: _____
Approved by : _____
Date: _____

Checked by: _____ Kazuma Lee 

Approval by: _____ Francis Chen 

Date: _____ 11 / 24 / 2010

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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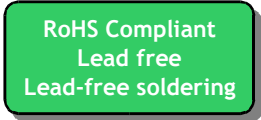
SAW Filter 213.3MHz 7.0MHz BW (SMD 5.0×7.0 mm)

MODEL NO.: TB0939A

REV. NO.1

A. MAXIMUM RATING:

1. Operating temperature range: -40°C to 80°C
2. Storage temperature range: -40°C to 85°C
3. Input Power Level : 10 dBm
4. Maximum DC Voltage : 10V



B. Characteristics :

Item	Unit	Min.	Type.	Max.
Center frequency, Fc	MHz	-	213.3	-
Insertion Loss, IL	dB	-	8.3	12.5
-3dB bandwidth	MHz	7.0	8.0	-
-10dB bandwidth	MHz	-	9.8	-
-30dB bandwidth	MHz	-	11.6	-
-40dB bandwidth	MHz	-	12.2	13.4
Passband Ripple Fc +/- 2MHz	dB	-	0.5	1.0
Group Delay variation Fc +/- 2MHz	nsec	-	70	120
Absolute Delay	unec	-	0.74	-
Attenuation (Reference level from minimum Insertion loss)				
DC ~ 193.3 MHz	dB	40	52	-
233.3 MHz ~ 600 MHz	dB	40	52	-
Temperature Coefficient	ppm/°C	-	-18	-
Source Impedance	Ohm	-	50	-
Load Impedance	Ohm	-	50	-

C. Frequency Characteristics :

(1) near band Response:(span 100MHz)

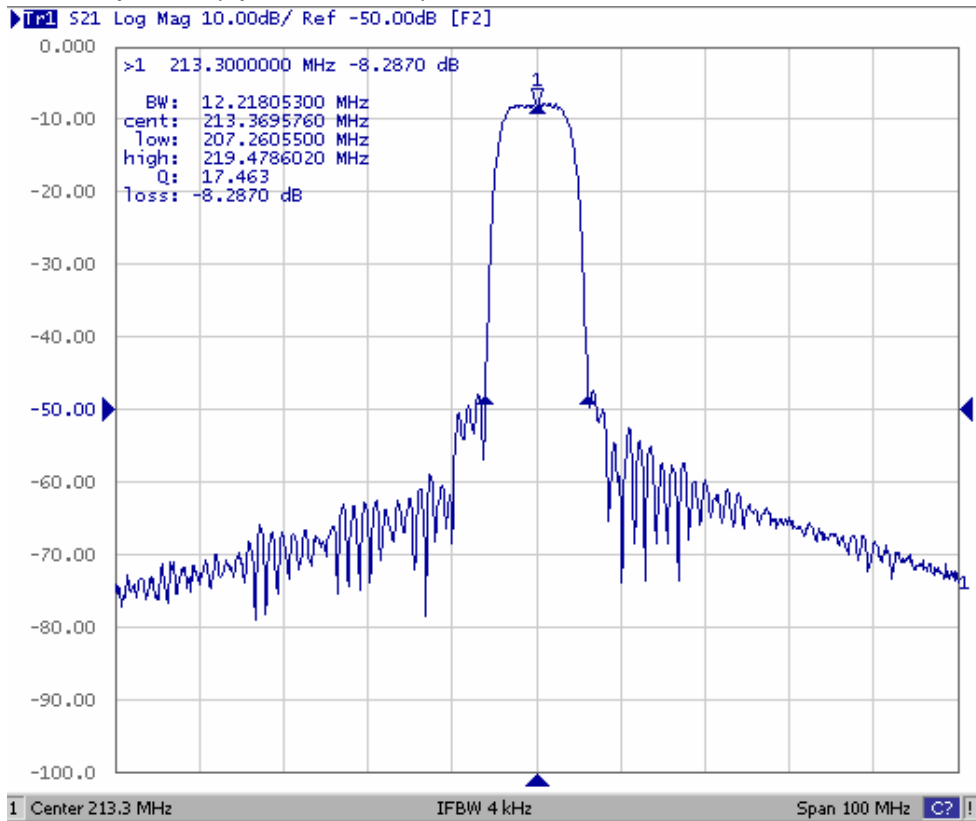


Fig1. Horizontal: 10MHz/Div Vertical: 10dB/Div

(2) Pass band Response and Group Time Delay response:

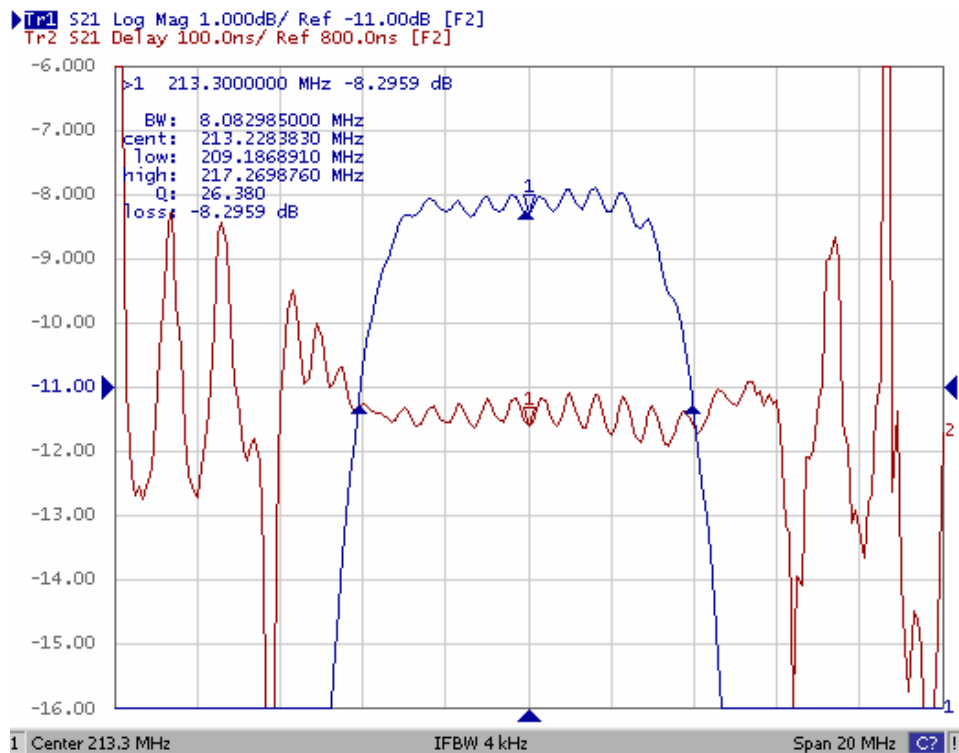
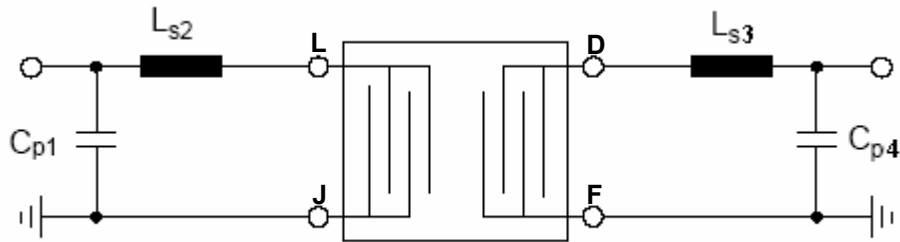


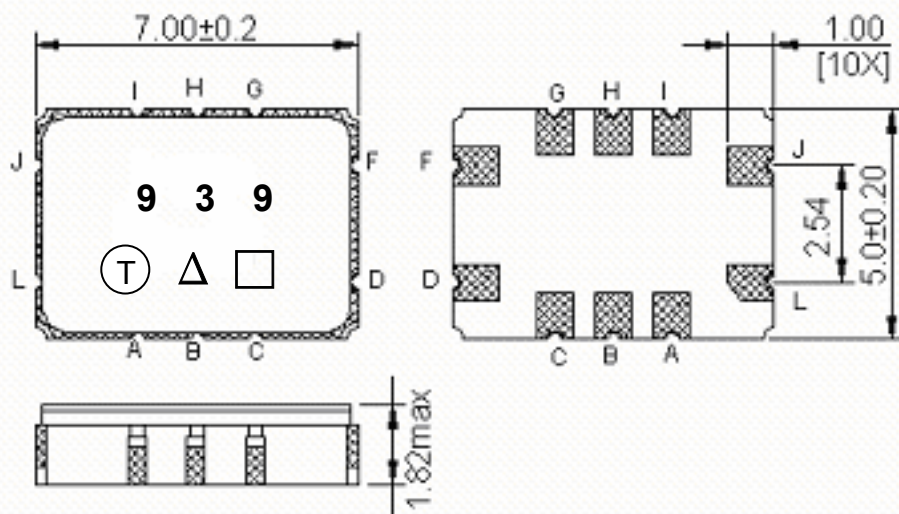
Fig2. Horizontal: 2MHz/Div Vertical: 1dB/Div
Vertical: 100ns/Div

D. Matching Circuit:



$$L_{s2}=39\text{nH} \quad L_{s3}=43\text{nH} \quad C_{p1}=24\text{pF} \quad C_{p4}=24\text{pF}$$

E. Outline Drawing:



Pin L –RF input

Pin D –RF output

Pin A,B,C,F,G,H,I,J - Ground

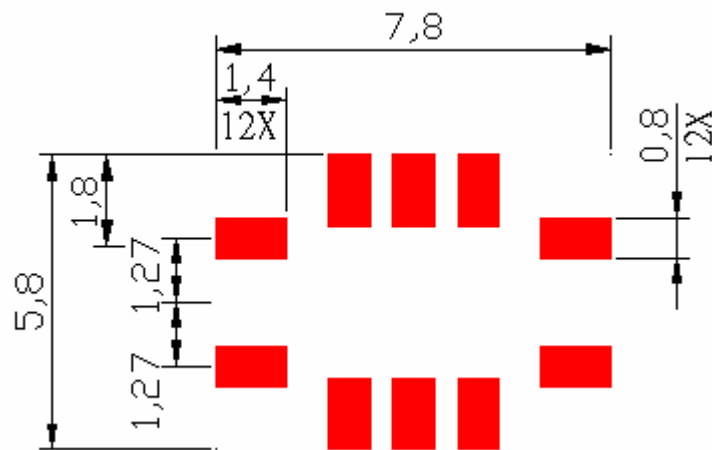
□ : Week Code (Follow the table from planner each year)

Unit : mm

△ : Product / Year Code

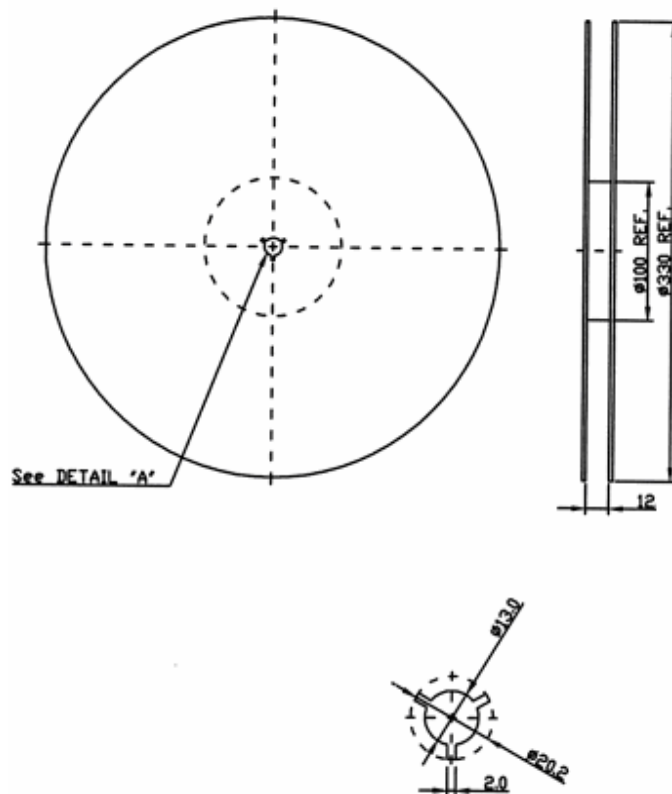
Year	2009 2013	2010 2014	2011 2015	2012 2016
Product Code	B	b	<u>B</u>	<u>b</u>

F. PCB Footprint:

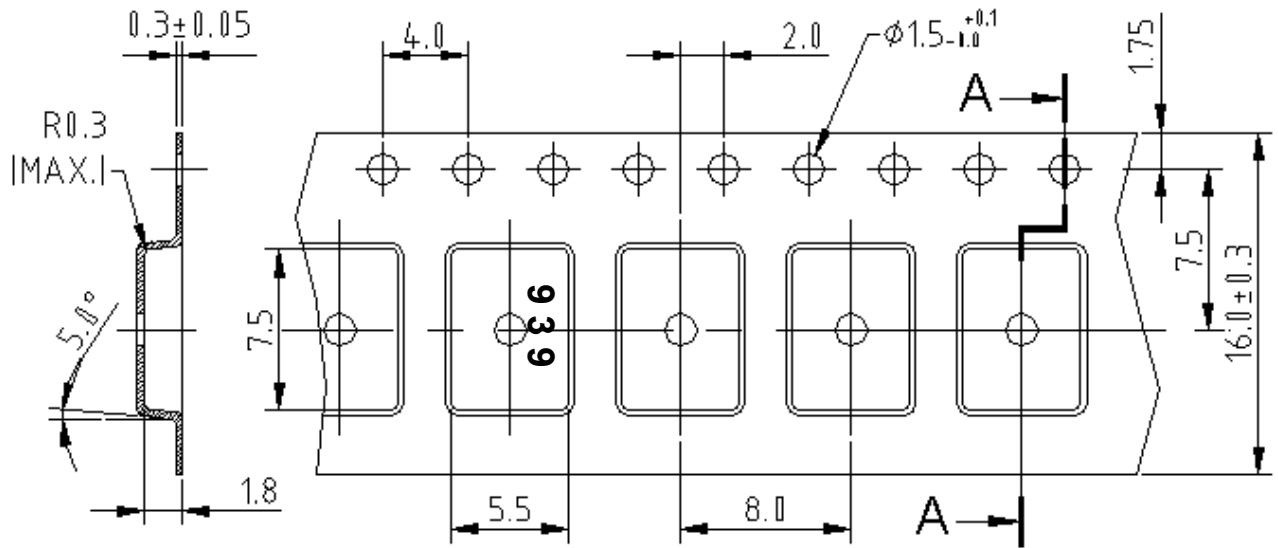


G. PACKING:

1. REEL DIMENSION



2. TAPE DIMENSION



H. RECOMMENDED REFLOW PROFILE :

