TMX W322

SAW Filter datasheet

3.0 x 3.0 x 1.3 mm, SMD

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TMX W322

SAW Bandpass Filters | Wireless Communications

Features

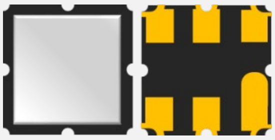
Features

- 836.5 MHz center frequency
- Ceramic package for Surface Mounted Technology
- Passband: 25 MHz

Applications

- Wireless applications

3.0 x 3.0 x 1.3 mm



Maximum Ratings

Parameter	Min.	Typ.	Max.	Unit
Storage temperature range (T_{stg})	-30		85	°C
Operating temperature range (T_A)	-40		85	°C
DC voltage (V_{DC})			0	V
Maximum Input Power Handling			10	dBm

Frequency and Electrical Characteristics (Reference temperature @ 25°C)

Parameter	Min.	Typ.[1]	Max.	Unit
Center frequency (fc)		836.5		MHz
Bandwidth (BW, passband width)	25.00			MHz
Insertion Loss (IL, 824 – 849 MHz)		2.1	3.0	dB
Amplitude ripple (824 – 849 MHz)		1.2	2.0	dB
Abosolute Attenuation				
From DC to 800.0 MHz	23	26		dB
From 869.0 to 894.0 MHz	29	32		dB
From 978.0 to 1006.0 MHz	25	28		dB
From 1050.0 to 2500.0 MHz	15	18		dB
VSWR (824.0 – 849.0 MHz)		1.8	2.3	
Input Impedance[2]		50		Ω
Output Impedance[2]		50		Ω

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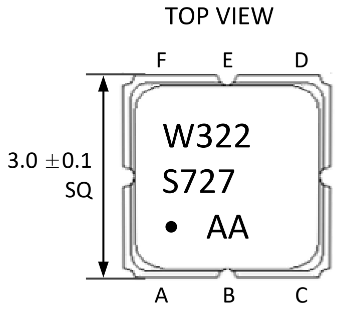
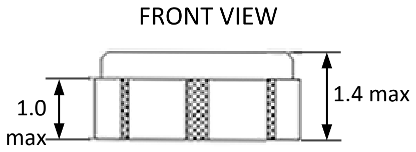
[1] Typical values are nominal performances at room temperature

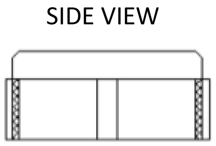
[2] No external matching circuit is required

Model Outline, Pin Connection and Marking

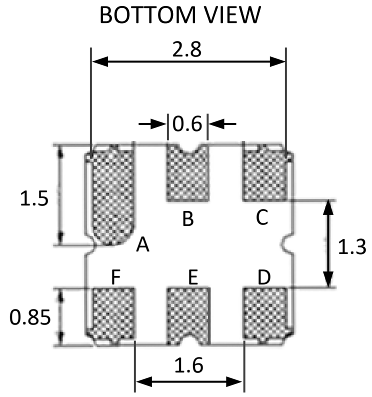


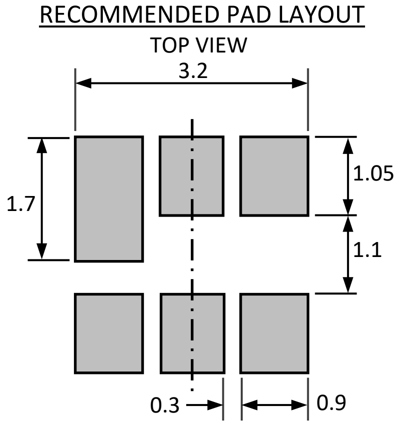
Marking		Note
Line 1	W322	Rakonxpress designation
Line 2	S727	S = Production code 7 = Year 2017 27 = Week 27
Line 3	•AA	• = Identify black dot AA = Internal Code (Wafer Batch)





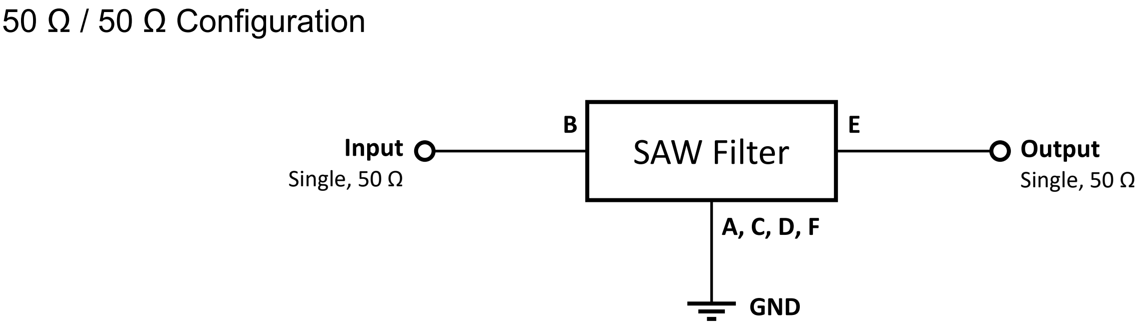
Pin	Connections
B	Input
E	Output
A, C, D, F	Case Ground





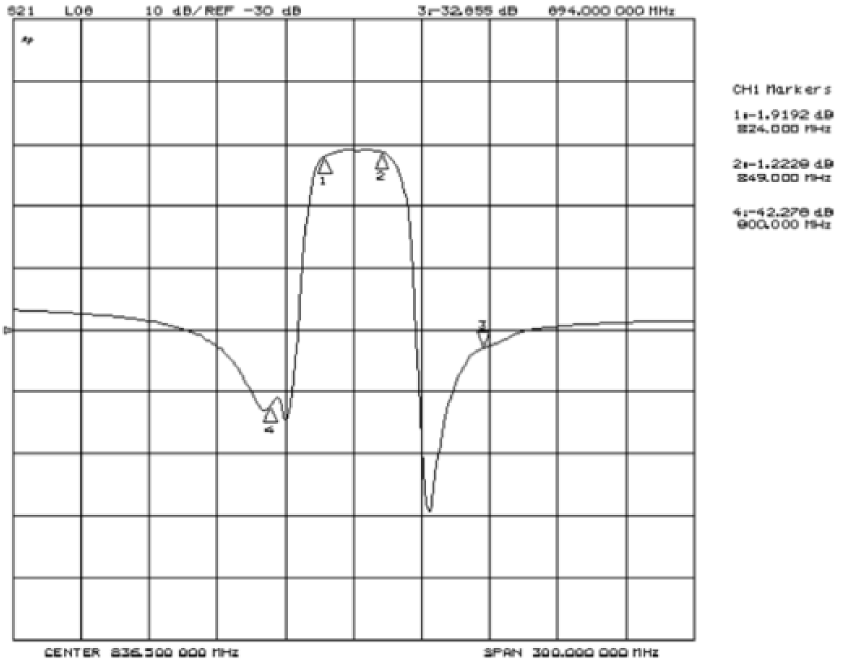
Unit: mm

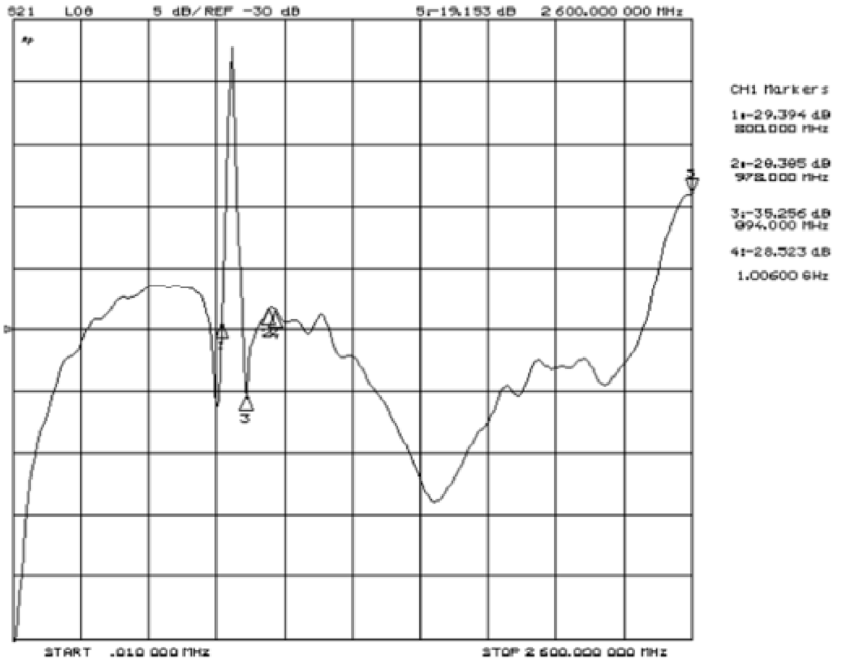
Test Circuit



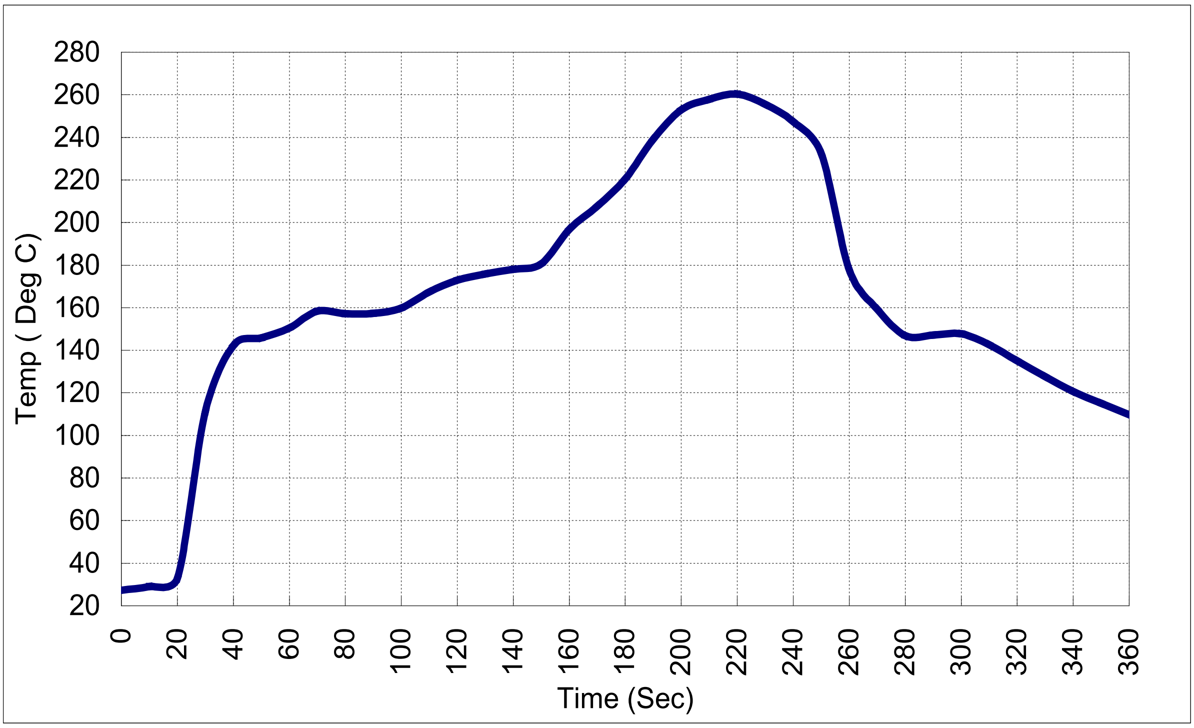
Frequency Characteristics

TYPICAL FREQUENCY RESPONSE





Recommended Reflow Soldering Profile

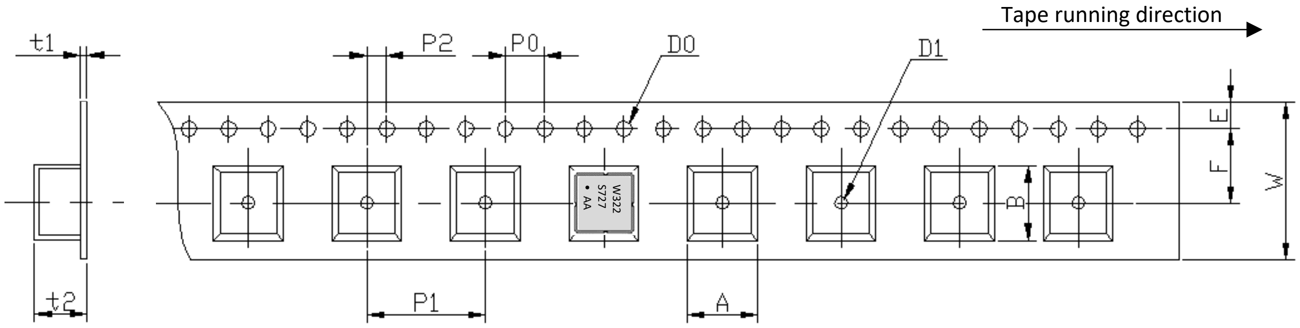


NOTE:

- The components shall remain within the electrical specifications after it soldered on the 1mm thickness PCB board and dipped in the solder at 260 ±5°C during 10 ± 1 seconds.
- The components shall remain within the electrical specifications after it soldered by electric iron, solder at 350 ± 10 °C during 3~4 seconds. Recovery time: 2 ±0.5h.
- Ultrasonic cleaning may cause deterioration and destruction of the component. Please avoid ultrasonic cleaning.
- Only leads of component may be soldered. Please avoid soldering another part of component.

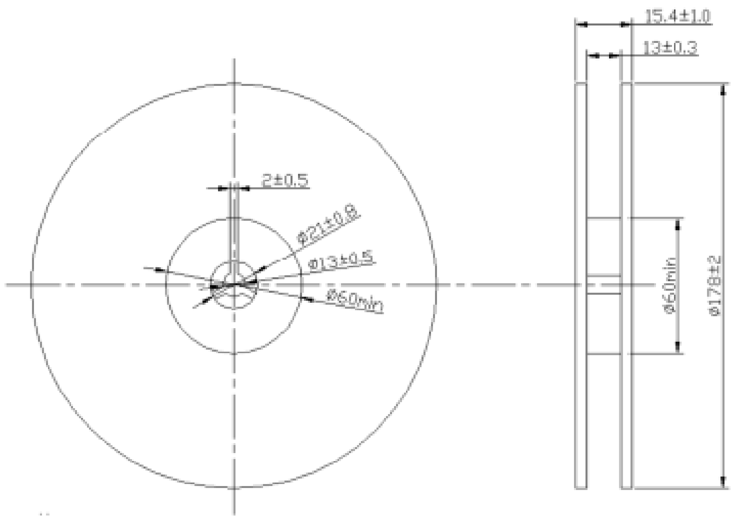
Tape and Reel Specifications

TAPE DETAILS:



Parameter	Code	Dimension	Tolerance
Height of component hole	A	3.4 max	
Width of component hole	B	3.4 max	
Diameter of sprocket hole	D_0	Φ 1.5	± 0.1
Diameter of feed hole	D_1	Φ 1.5	± 0.25
Pitch of sprocket hole	P_0	4.0	± 0.2
Length from hole center to component center	P_1	8.0	± 0.1
Length from Pocket hole center to sprocket hole center	P_2	2.0	± 0.2
Width of carrier tape	W	12.0	± 0.3
Width of adhesive tape	F	5.5	± 0.3
Gap of hold down tape and carrier tape	E	1.75	± 0.1
Thickness of Ebossed tape sheet	t1	0.31 max	
Thickness of Ebossed tape	t2	1.5 max	

REEL DETAILS:



NOTE:

- Unit: mm
- Standard Packing Quantity (SPQ) is 3000 pieces/ reel