

TMX W333

SAW Filter datasheet

3.0 x 3.0 x 1.3 mm, SMD

Table of Contents

Features	1
Maximum ratings	1
Frequency and electrical characteristics	1
Model outline, pin connection and marking	2
Test circuit	2
Frequency characteristics	3

TMX W333

SAW Bandpass Filters | Audio

Features

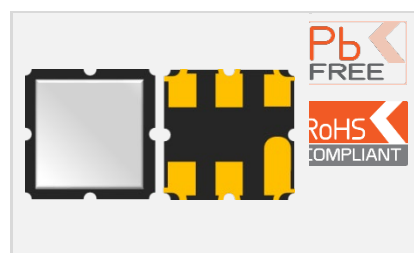
Features

- 864 MHz center frequency
- Ceramic package for Surface Mounted Technology
- Frequency Low Loss (typically 2.5dB) within PassBand Width 862.5 to 865.5 MHz
- Maximum RF power: 10 dBm
- No matching network required for operation at 50Ω

Applications

- Audio

3.8 x 3.8 x 1.3 mm



Maximum ratings

Parameter	Min.	Typ.	Max.	Unit
Storage temperature range (T_{stg})	-40		85	°C
Operating temperature range (T_A)	-40		80	°C
DC permissive voltage			10	V
Maximum RF Power			10	dBm

Frequency and electrical characteristics

Parameter	Min.	Typ. ¹	Max.	Unit
Source impedance ² (Single ended)		50		Ω
Load impedance ² (Single ended)		50		Ω
Center frequency (f_c)		864		MHz
Bandwidth (BW, passband width)	3.00			MHz
Absolute Attenuation				
From 300 MHz to 848 MHz	39	45		dB
From 848 MHz to 853.3 MHz	30	35		dB
From 878 MHz to 882 MHz	35	40		dB
From 882 MHz to 1200 MHz	48	55		dB
Insertion Loss (IL, 862.5 – 865.5 MHz)		2.5	3.4	
Amplitude Ripple (862.5 – 865.5 MHz)		0.5	1.5	
VSWR			2.2	
Temperature Coefficient of Frequency		-30.0		ppm/K

¹ Typical values are nominal performances at room temperature

² No external matching circuit is required

TMX W333

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Model outline, pin connection and marking

TOP VIEW

3.0 ± 0.1 SQ

1

FRONT VIEW

1.5 max

0.9 ± 0.08

BOTTOM VIEW

1.6

1.5

1.3

0.85 (x5)

0.6 (x6)

Marking	Note
Line 1	W333 RakonXpress designation
Line 2	S610 S = production Code 6 = Year 2016 10 = Week 10
Line 3	•AA • = Identify black dot "AA" = internal production batch code, it corresponds to the wafer

Pin	Connections
2	Input
1, 3	Output
1, 3, 4, 6	Ground

RECOMMENDED PAD LAYOUT

TOP VIEW

2.20

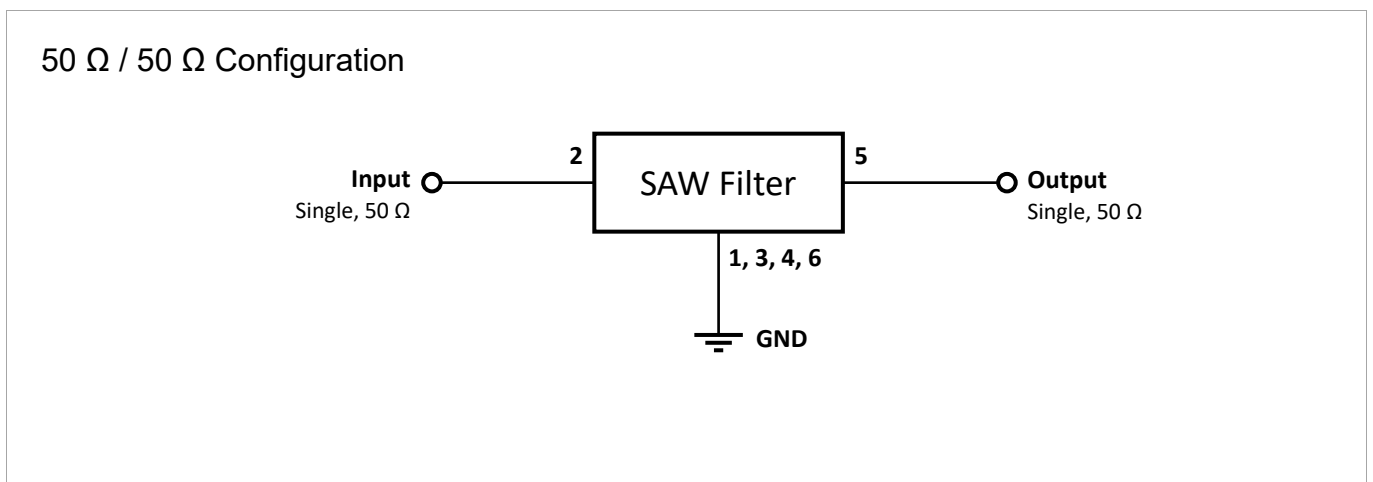
1.70

2.15

0.80 (x6)

Unit: mm

Test circuit



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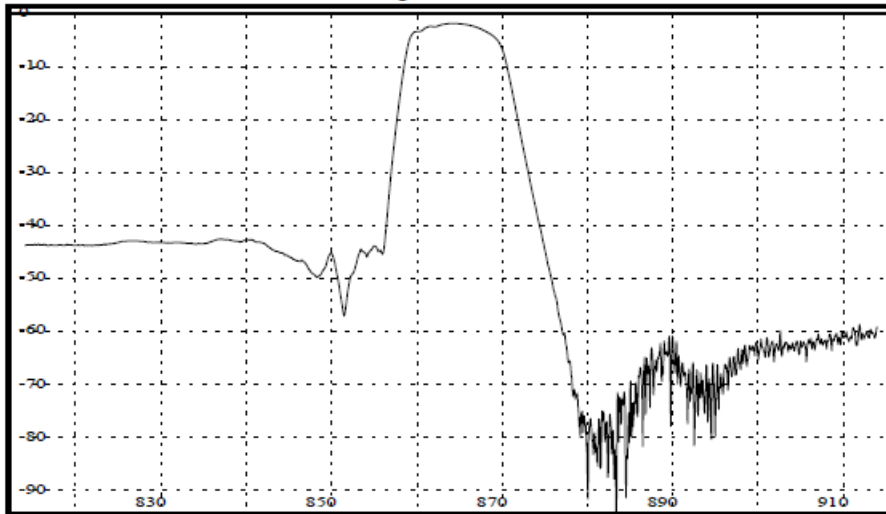


Frequency characteristics

TYPICAL S21 RESPONSE

Reference:
CENTER FREQUENCY = 0 MHz
LOSS REFERENCE = 0 dB
DELAY REFERENCE = 0 μ s
PHASE REFERENCE = 0 deg

Scales:
SCALE_FREQUENCY = 10 MHz/div



Reference:
CENTER FREQUENCY = 0 MHz
LOSS REFERENCE = 0 dB
DELAY REFERENCE = 0 μ s
PHASE REFERENCE = 0 deg

Scales:
SCALE_FREQUENCY = 1 MHz/div

