TMX JT01

SAW Filter datasheet

5.0 x 5.0 x 1.35 mm, SMD

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Issue: Rev 3, 5 December 2022

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TMX JT01

SAW Bandpass Filters | Wireless Communications

Features

Features

- 433.92 MHz center frequency
- Ceramic package for Surface Mounted Technology
- Typical Passband Width: 2 MHz
- Low loss RF Filter and low amplitude ripple
- No matching network required for operation at 50 Ω

Applications

- Remote control - RF
- Wireless applications:
  - Home appliances
  - Security systems

5.0 x 5.0 x 1.35 mm

Maximum Ratings

Parameter	Min.	Typ.	Max.	Unit
Storage temperature range (T_{stg})	-40		85	°C
Operating temperature range (T_A)	-10		65	°C
DC voltage (V_{DC})			10	V
RF Power (in Bandwidth)			10	dBm

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

Parameter	Min.	Typ.[1]	Max.	Unit
Center frequency (f_C)		433.92		MHz
Insertion Loss (IL, fc ± 2 MHz)		2.2	4.2	MHz
Bandwidth (BW @ 3 dB, passband width)	2.00			dB
Amplitude ripple (pk-pk, fc ± 2 MHz)			1.5	dB
Absolute Attenuation				
From DC to (fc - 20.0) MHz	33	43		dB
From (fc + 25.0) to (fc + 100.0) MHz	38	48		

[1] Typical values are nominal performances at room temperature

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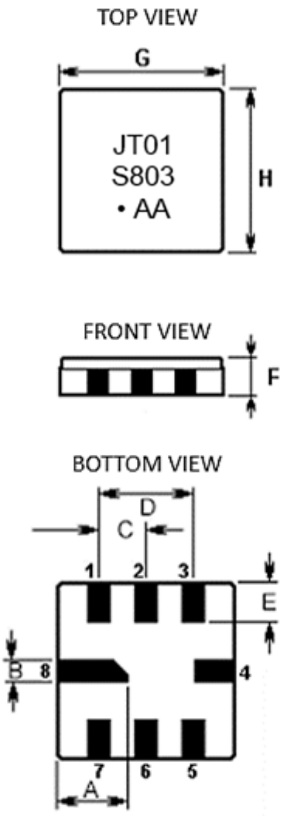
Model Outline, Pin Connection and Marking



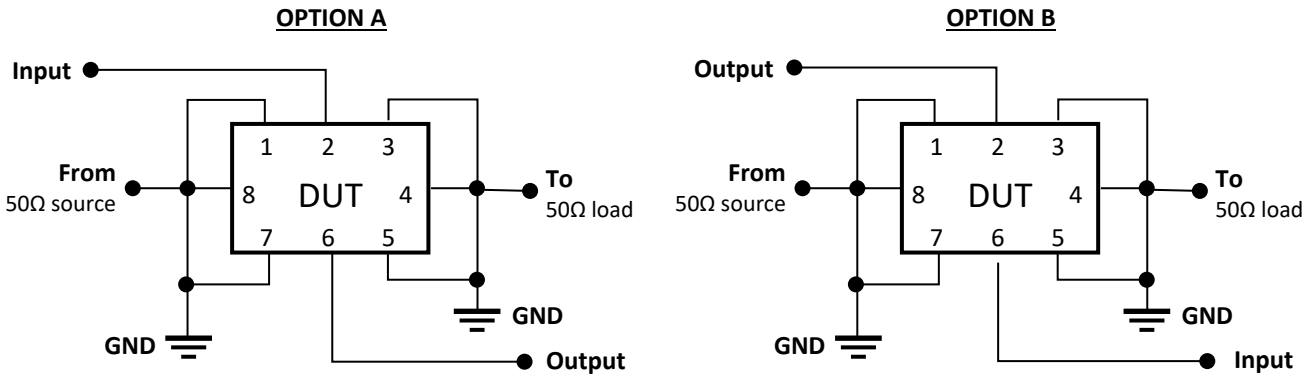
Marking		Note
Line 1	JT01	Reference to RakonXpress part number with only the last 4 digits
Line 2	S803	S = Production Code 8 = Year 2085 03 = Week 03
Line 3	• AA	• = Identify black dot AA = Internal Code (Wafer Batch)

Pin	Connections
1	Input / Output ground
2	Input/ Output
5	Output / Input ground
6	Output / Input
3, 7	To be grounded
4, 8	Case ground

Code	Dimensions (mm)
A	2.08
B	0.60
C	1.27
D	2.54
E	1.20
F	1.35
G	5.00
H	5.00

Unit: mm

Test Circuit



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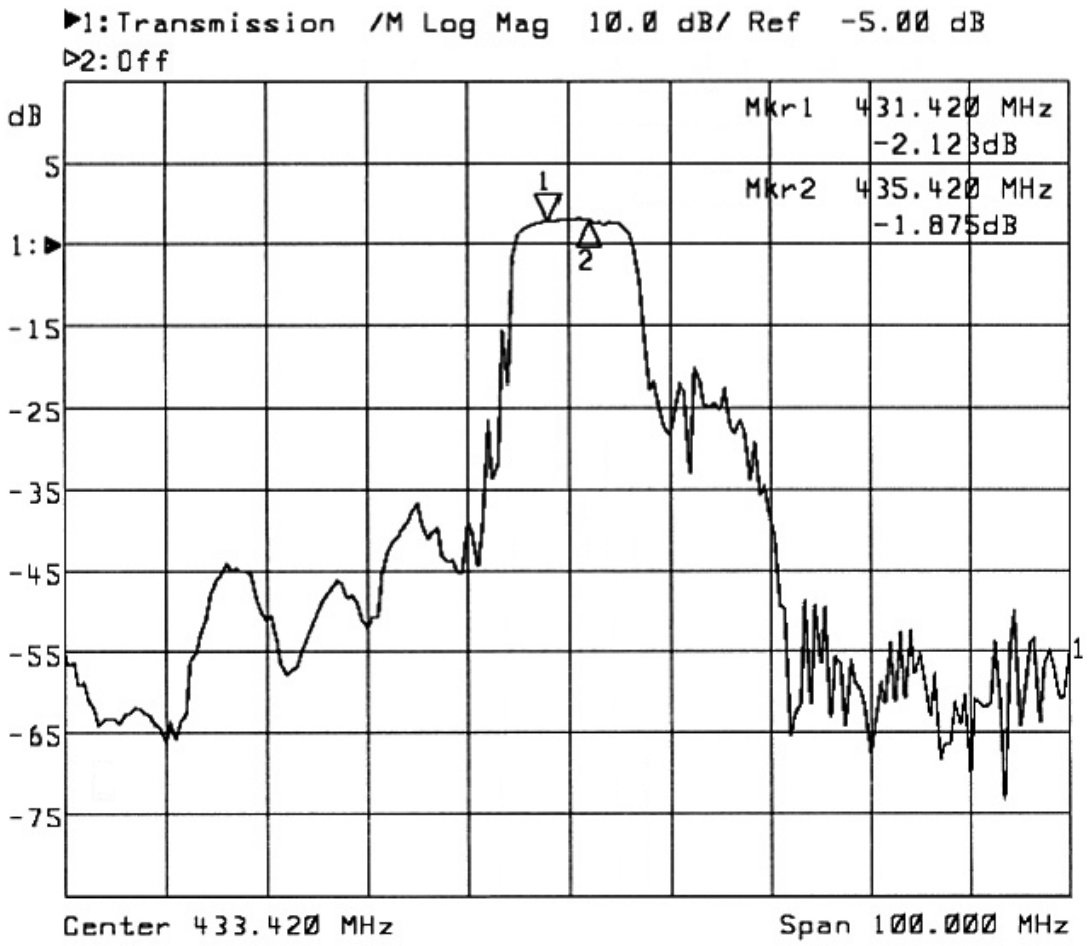
Frequency Characteristics

TYPICAL FREQUENCY RESPONSE



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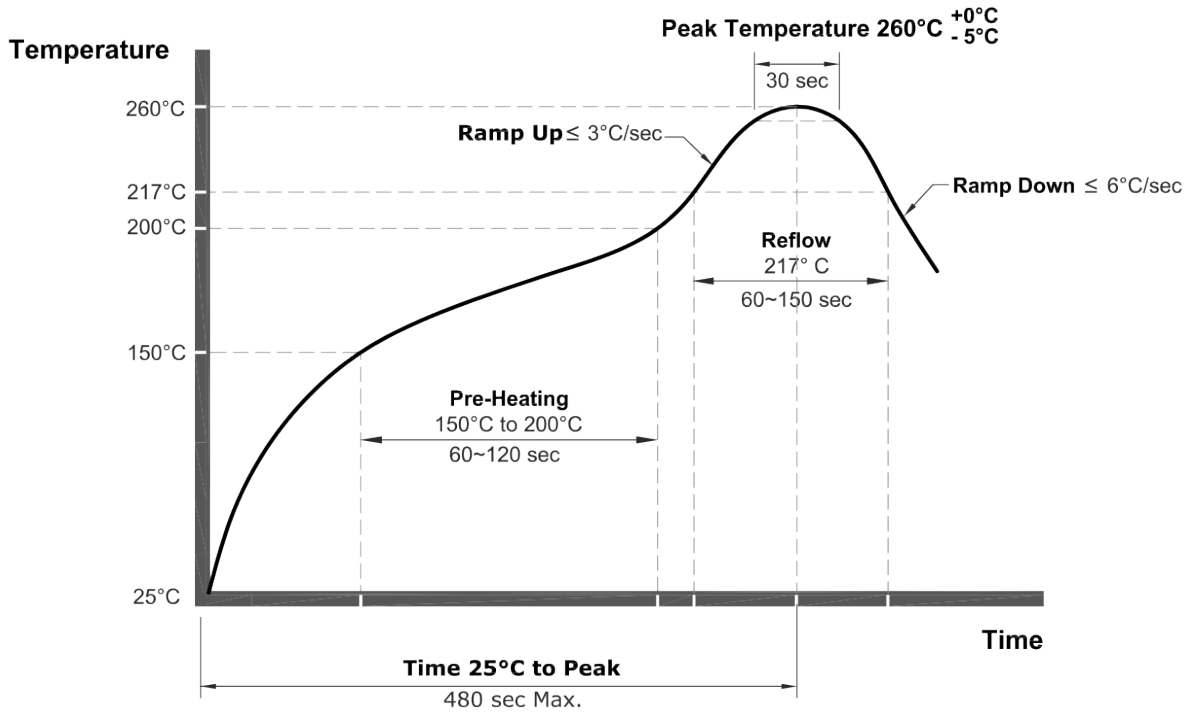
Recommended Reflow Soldering Profile



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 ± 0.5 hour.
- Ultrasonic cleaning may cause deterioration and destruction of the component. Please avoid ultrasonic cleaning.
- Only leads of components may be soldered. Please avoid soldering another part of the component.

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