

**SAW Filter: 140MHz**  
**Part No: MP02233**

**Model: TB0541A**  
**Rev No: 1**

**A. MAXIMUM RATING:**

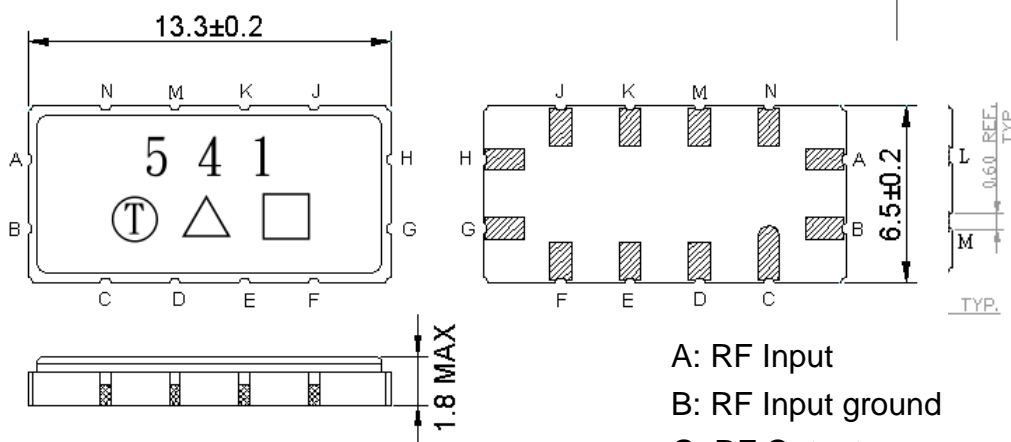
1. Operating Temperature: -40°C ~ +85°C
2. Storage Temperature: -40°C ~ +85°C
3. Input Power Level: 10dBm

**B. CHARACTERISTICS:**

Ambient Temperature: 25°C

Characteristics	Value			Note
	Min.	Typ.	Max.	
Center frequency Fc MHz	139.6	140	140.4	-
Maximum Insertion loss IL dB	-	6.8	7.5	-
1dB Bandwidth MHz	5.80	5.95	-	-
3dB Bandwidth MHz	6.85	6.97	-	-
40dB Bandwidth MHz	-	10.40	11.10	-
Passband Ripple (Fc ± 2.4MHz) MHz	-	0.40	1.00	-
Phase Linearity (Fc ± 2.4MHz) (P-P) deg	-	3.6	14	-
Group Delay Ripple (Fc ± 2.4MHz) nS	-	60	200	-
Group Delay at Fc uS	-	0.94	-	-
Temp Coefficient ppm/°C	-	-18	-	-

**C. OUTLINE DRAWING:**



- A: RF Input
  - B: RF Input ground
  - G: RF Output
  - H: RF Output ground
  - C, D, E, F, J, K, M, N: To be ground
- Unit: mm

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### D. FREQUENCY CHARACTERISTICS:

#### 1. S21 Response

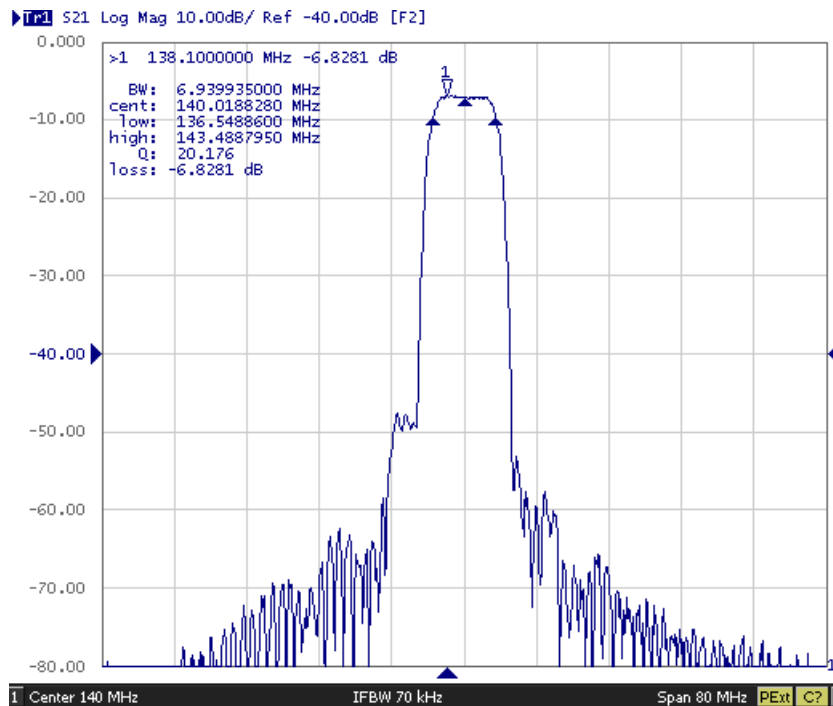


Fig. 1. Horizontal: 8MHz/Div Vertical: 10dB/Div

#### 2. Pass band Ripple and Group Delay Ripple

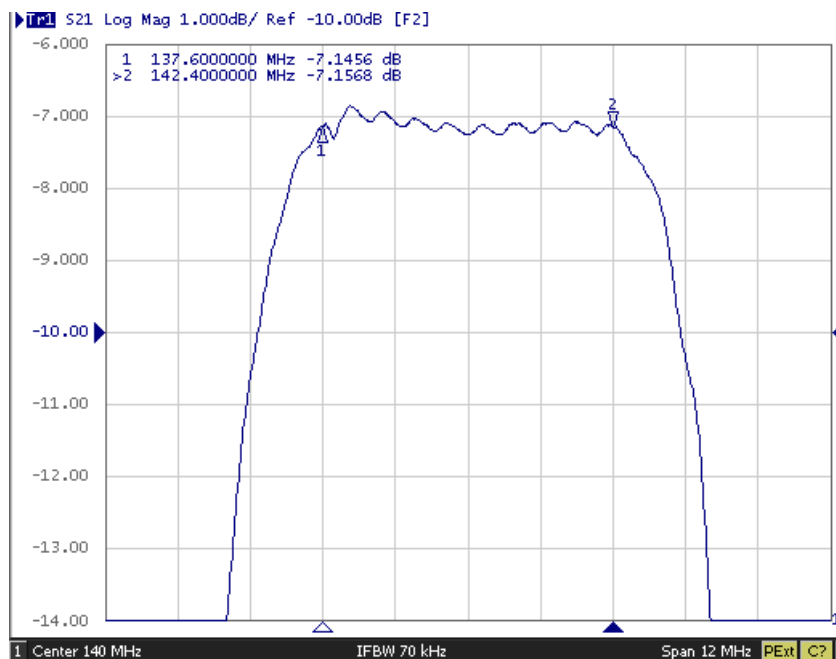


Fig. 2. Horizontal: 1.2MHz/Div Vertical: 1dB/Div

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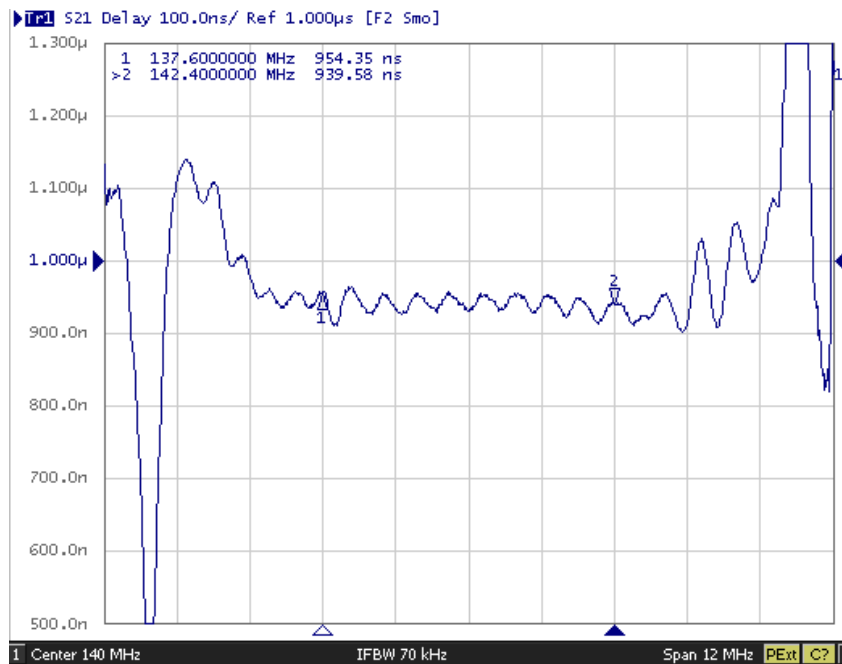
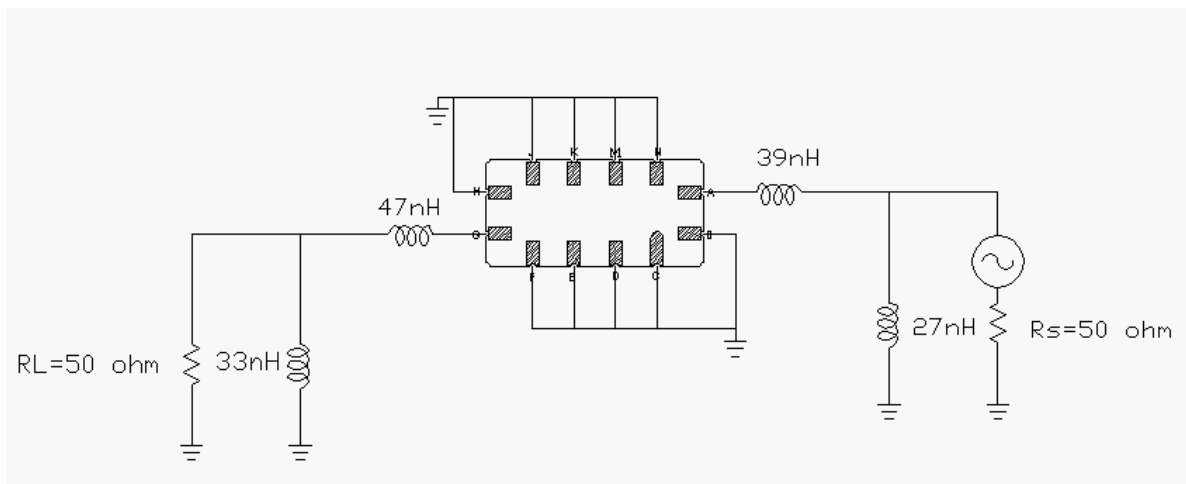
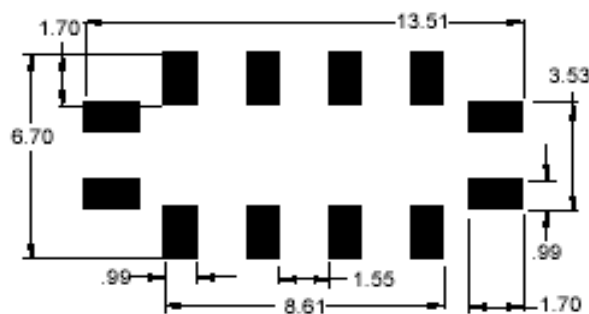


Fig. 3. Horizontal: 1.2MHz/Div Vertical: 100nS/Div

**E. TEST FIXTURE:**



**F. PCB FOOTPRINT:**

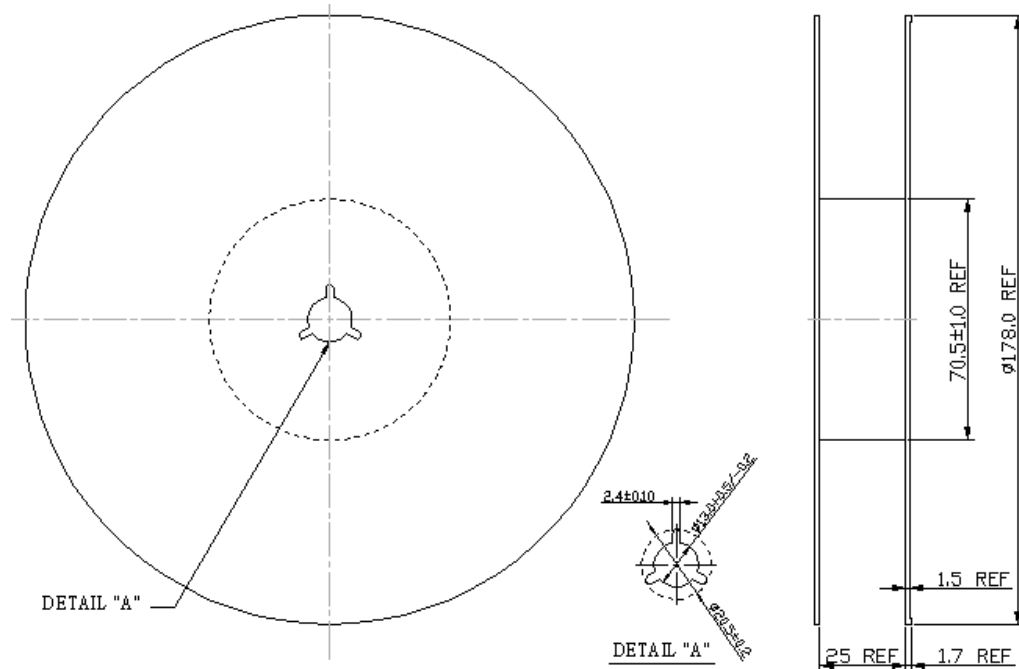


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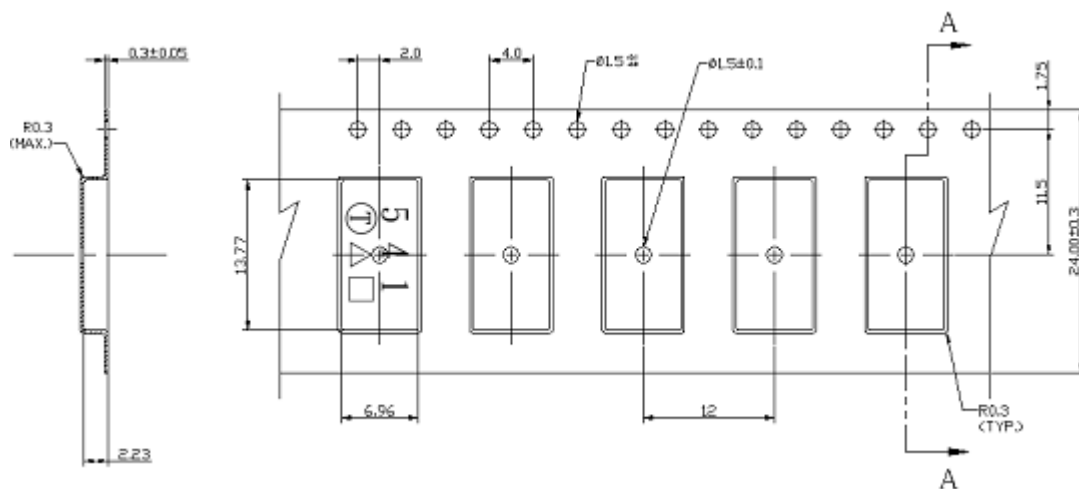
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**G. PACKING:**

**1. REEL DIMENSION**



**2. TAPE DIMENSION**



Direction of Feed