

**SAW Filter 70.0MHz**

**Model No: TB1319A**

**Part No: MP09084**

**Rev No: 1**

**A. MAXIMUM RATING:**

Electrostatic Sensitive Device

1. Input Power Level: 10dBm
2. DC Voltage: 10V
3. Operating Temperature: -30°C to +85°C
4. Storage Temperature: -30°C to +85°C
5. Moisture Sensitivity Level: Level1 (MSL1)

**B. ELECTRICAL CHARACTERISTICS:**

Reference Temperature Ta = 25°C

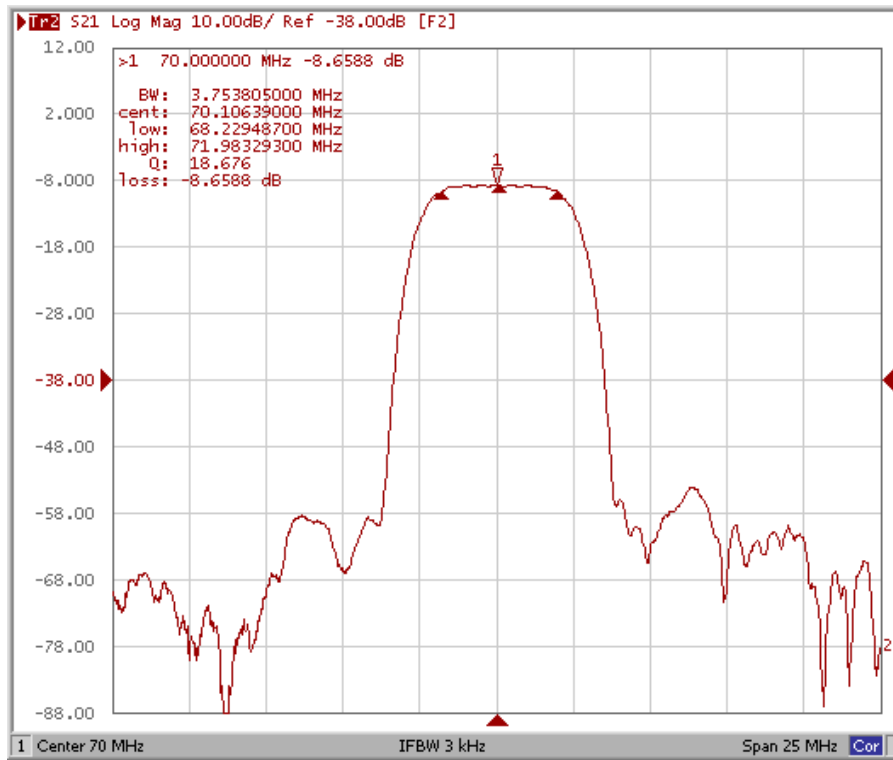
Parameters	Unit	Min.	Typ.	Max.
Center frequency Fc	MHz	-	70.0	-
Insertion Loss IL	dB	-	8.6	10.5
1 dB Bandwidth	MHz	3.40	3.77	-
3 dB Bandwidth	MHz	-	4.60	-
40 dB Bandwidth	MHz	-	7.30	8.00
Amplitude ripple within Fc ±1.5MHz	dB	-	0.3	1.0
Group Delay ripple within Fc ±1.5MHz	nsec	-	65	150
Absolute Delay	µsec	-	0.97	-
Relative Attenuation:				
Ultimate Rejection	dB	38	43	-
Temperature Coefficient of frequency	ppm/°C	-	-86	-

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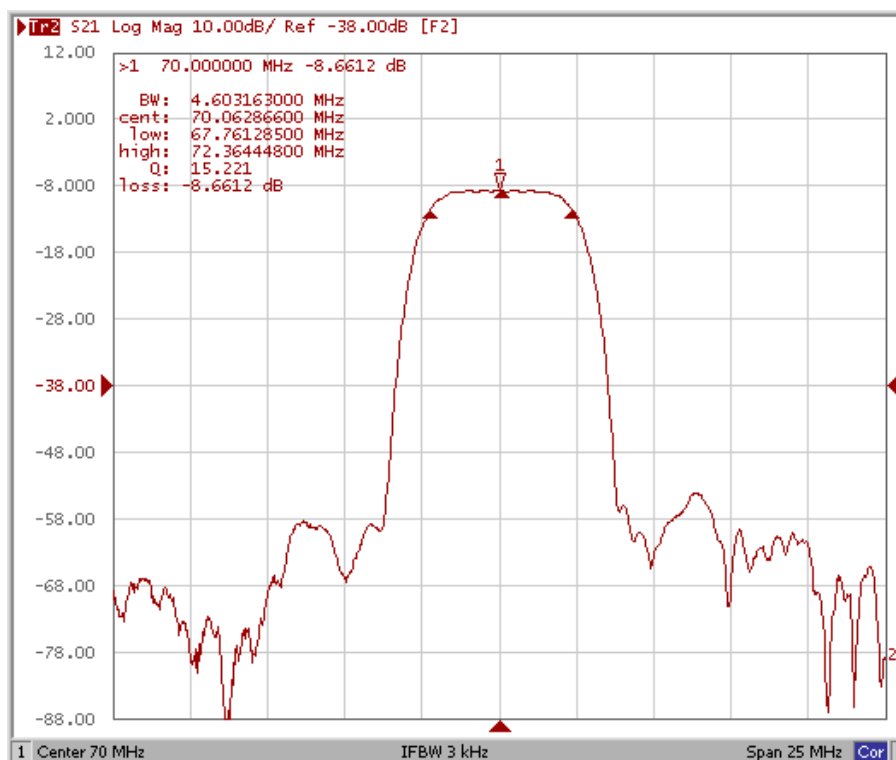
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**C.FREQUENCY CHARACTERISTICS:**

1. Bandwidth at -1.0dB



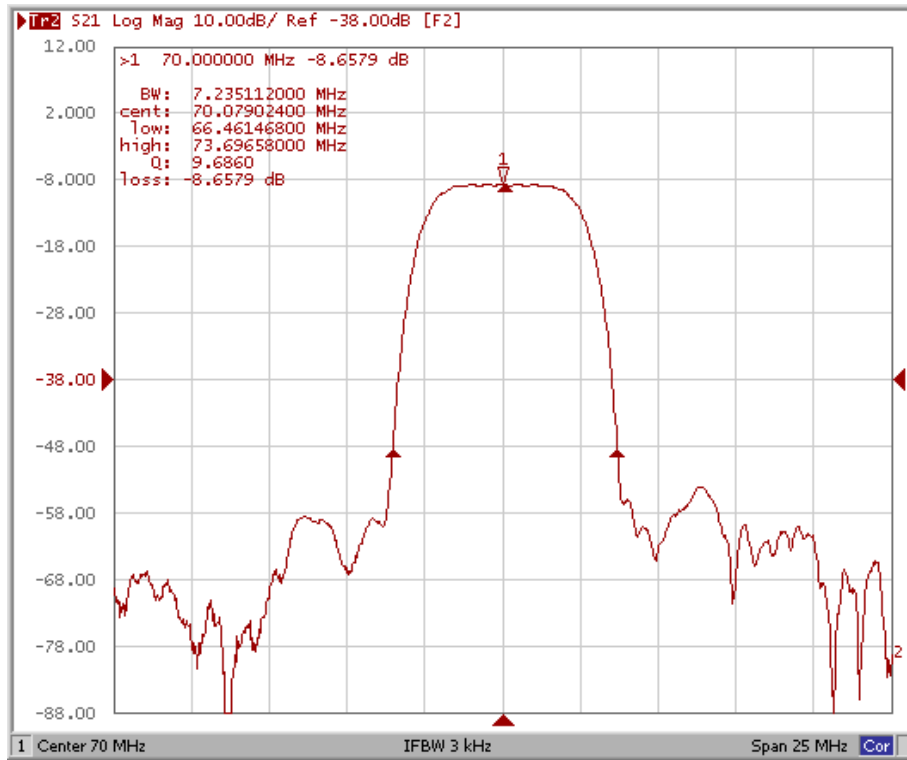
2. Bandwidth at -3.0dB



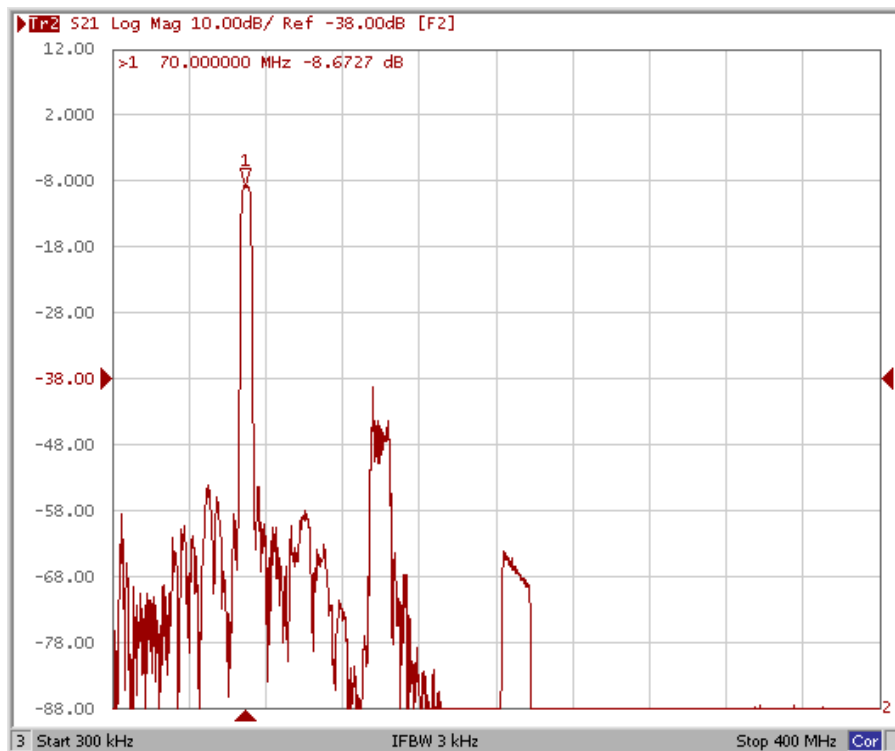
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### 3. Bandwidth at -40dB



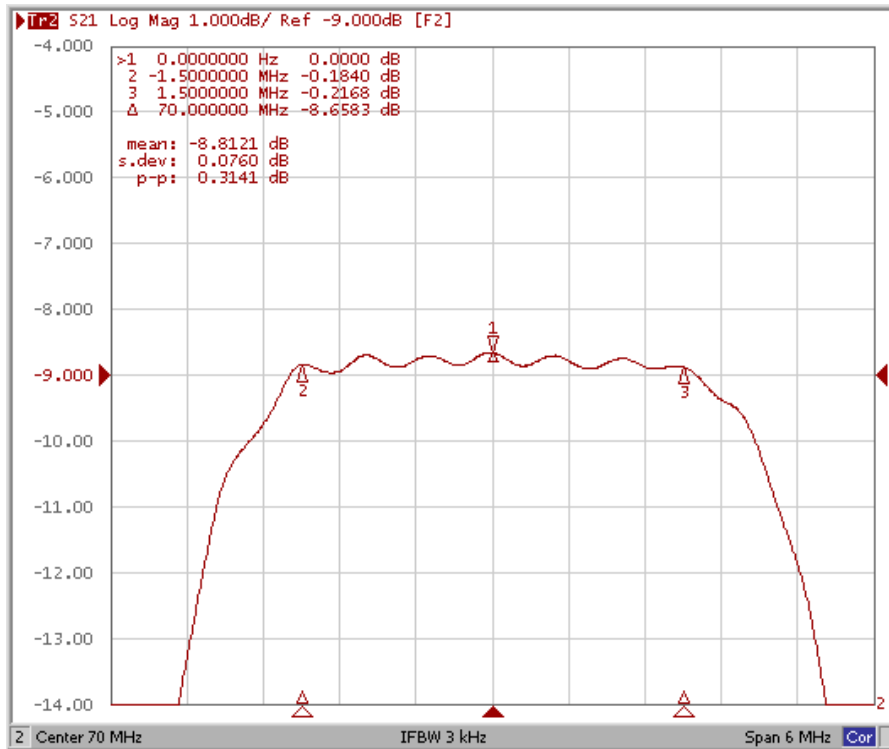
### 4. Wide Band



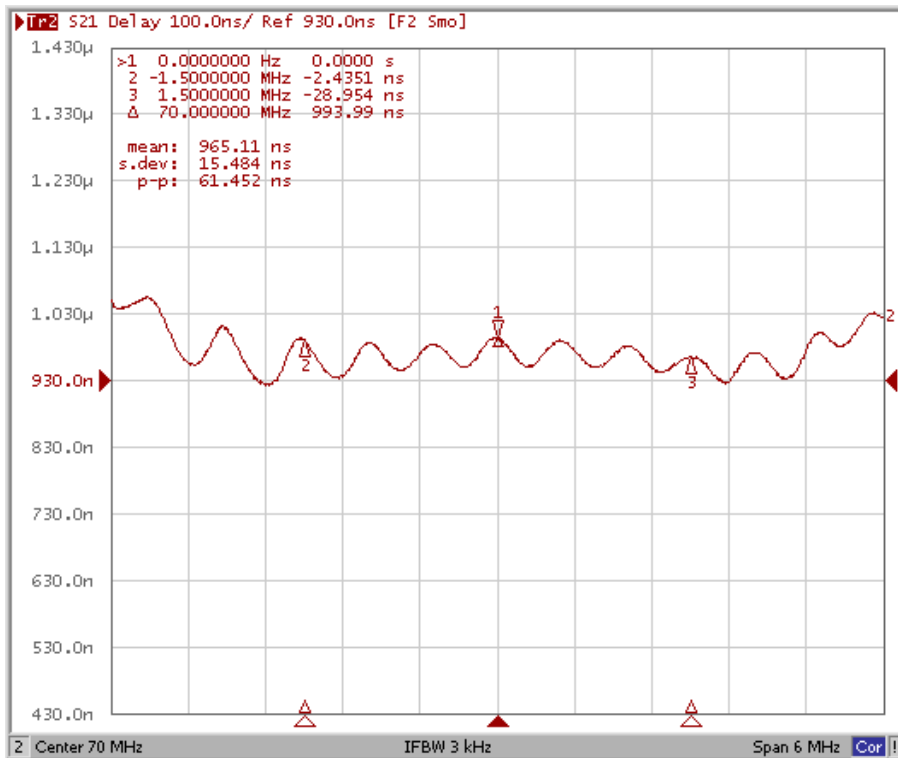
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### 5. Ripple Variation Fo $\pm 1.5$ MHz



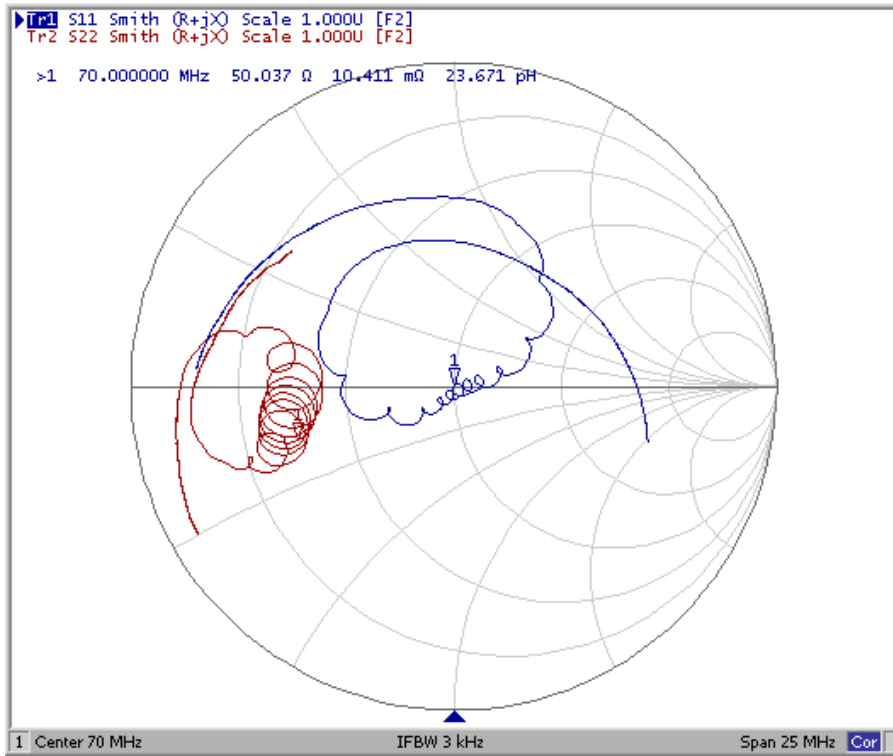
### 6. Group Delay Variation Fo $\pm 1.5$ MHz



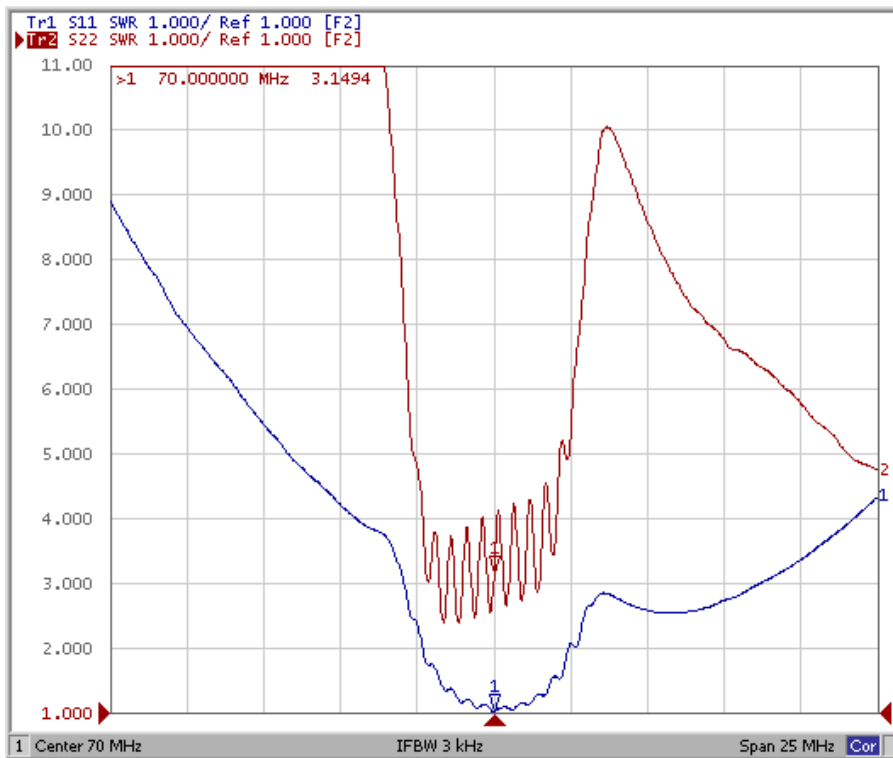
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### 7. Smith Chart



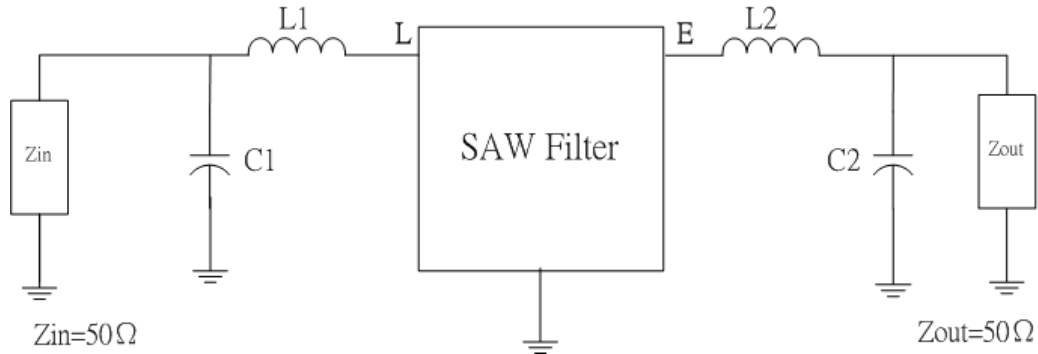
### 8. VSWR



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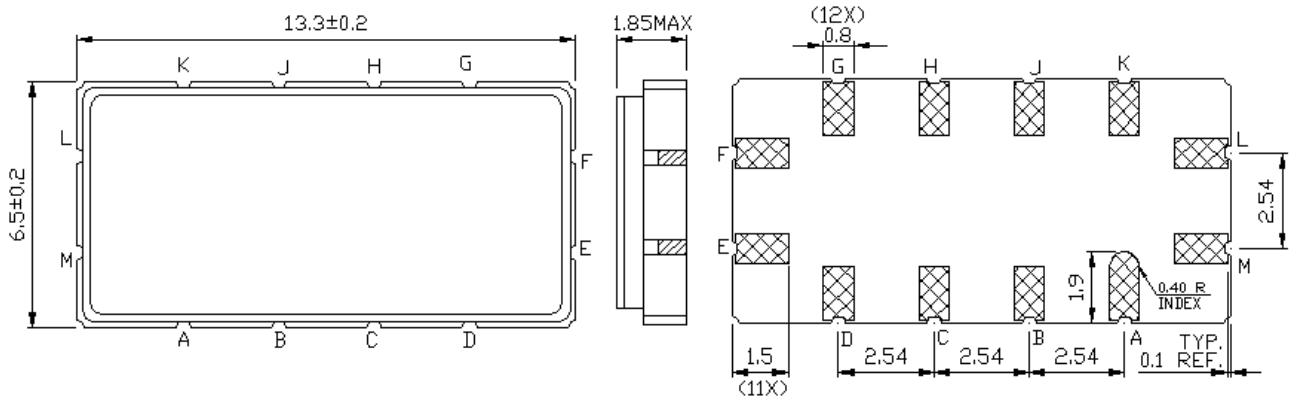
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**D. MEASUREMENT CIRCUIT:**



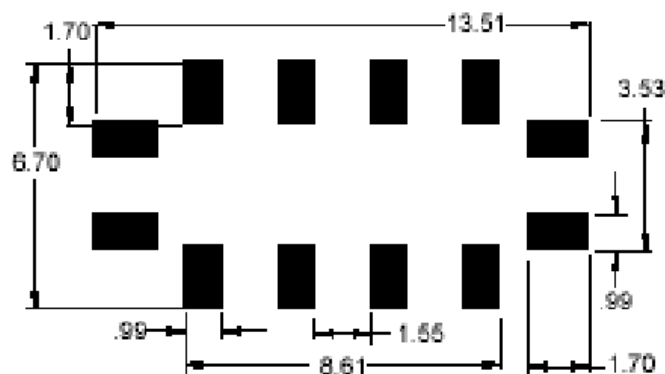
$L1 = 150\text{nH}$ ,  $L2 = 100\text{nH}$ ,  $C1 = 51\text{pF}$ ,  $C2 = 47\text{pF}$

**E. OUTLINE DRAWING:**



L: RF Input  
 E: RF Output  
 Others: To be Ground

**F. PCB FOOTPRINT:**



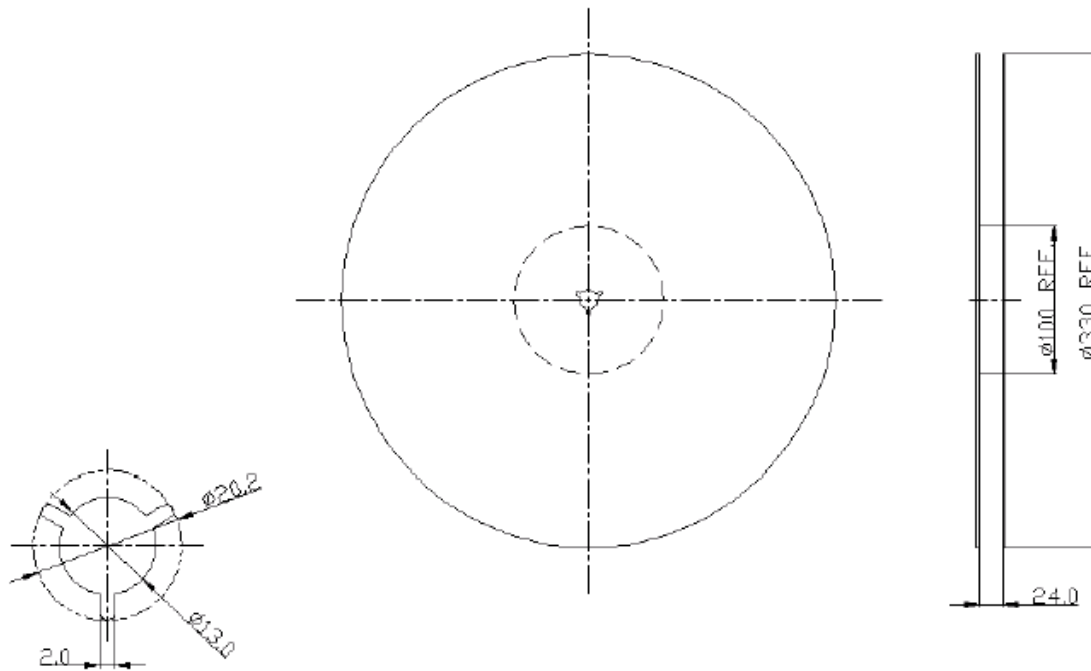
Unit: mm

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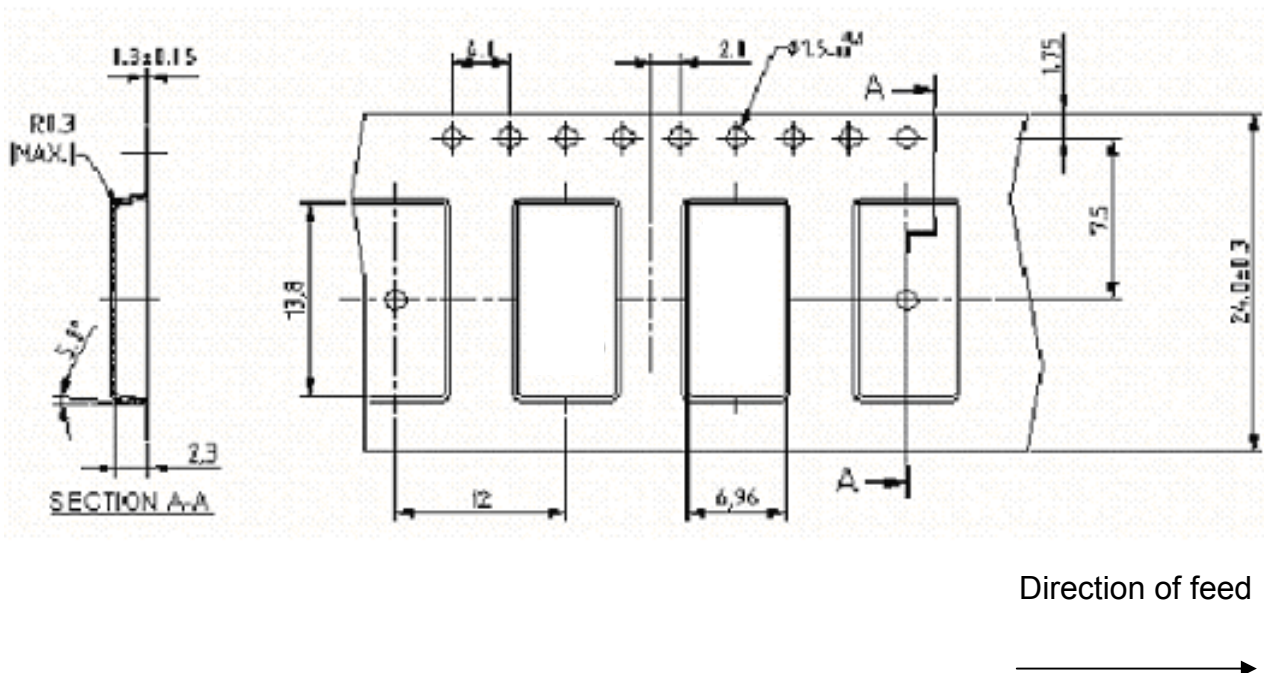
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**G. PACKING:**

1. Reel Dimension



2. Tape Dimension



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**H. RECOMMENDED REFLOW PROFILE:**

1. Preheating shall be fixed at 150 ~ 180°C for 60 ~ 90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50 ~ 80 seconds and at 260°C +0/-5°C peak (20 ~ 40 sec).
4. Time: 2 times.

