

**SAW Filter 1842.50MHz**  
**Part No: MP07831**

**Model: TA1843C**  
**Rev No: 1**

**A. MAXIMUM RATING:**

Electrostatic Sensitive Device (ESD)

1. Operating temperature range: -20°C to +85°C
2. Storage temperature range: -40°C to +100°C
3. Maximum Input Power: +10dBm
4. Maximum DC Voltage: ±5V
5. Moisture Sensitivity Level: Level 1

**B. ELECTRICAL CHARACTERISTICS:**

1. Terminating source impedance:  $Z_S = 50 \parallel 33\text{nH} \Omega$  (Single-ended)
2. Terminating load impedance:  $Z_L = 50 \parallel 12\text{nH} \Omega$  (Single-ended)

Parameters Description		Unit	Min.	Typ.	Max.
Center Frequency		MHz	-	1842.5	-
Insertion Loss (*1)	1805 ~ 1880MHz	dB	-	2.0	4.0
Amplitude Ripple	1805 ~ 1880MHz	dB	-	-	3.3
VSWR	Input				
	1805 ~ 1880MHz	-	-	1.9	2.3
	Output				
	1805 ~ 1880MHz	-	-	1.8	2.2
Attenuation:					
DC ~ 960MHz		dB	34	37	-
1558 ~ 1608MHz		dB	35	41	-
1710 ~ 1785MHz		dB	34	38	-
1920 ~ 2400MHz		dB	25	35	-
2400 ~ 2500MHz		dB	33	44	-
2500 ~ 3610MHz		dB	25	36	-
3610 ~ 3760MHz		dB	25	36	-
3760 ~ 5415MHz		dB	20	29	-
5415 ~ 5640MHz		dB	20	29	-
5640 ~ 7220MHz		dB	18	24	-
7220 ~ 7520MHz		dB	16	24	-
7520 ~ 8000MHz		dB	14	22	-

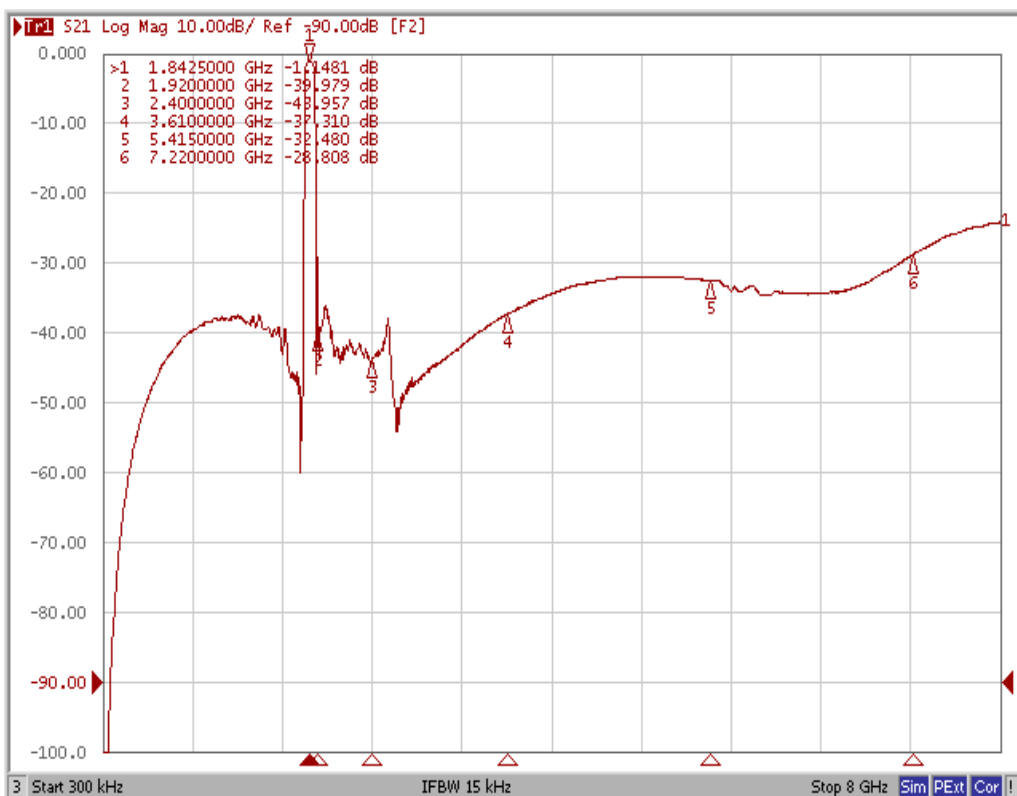
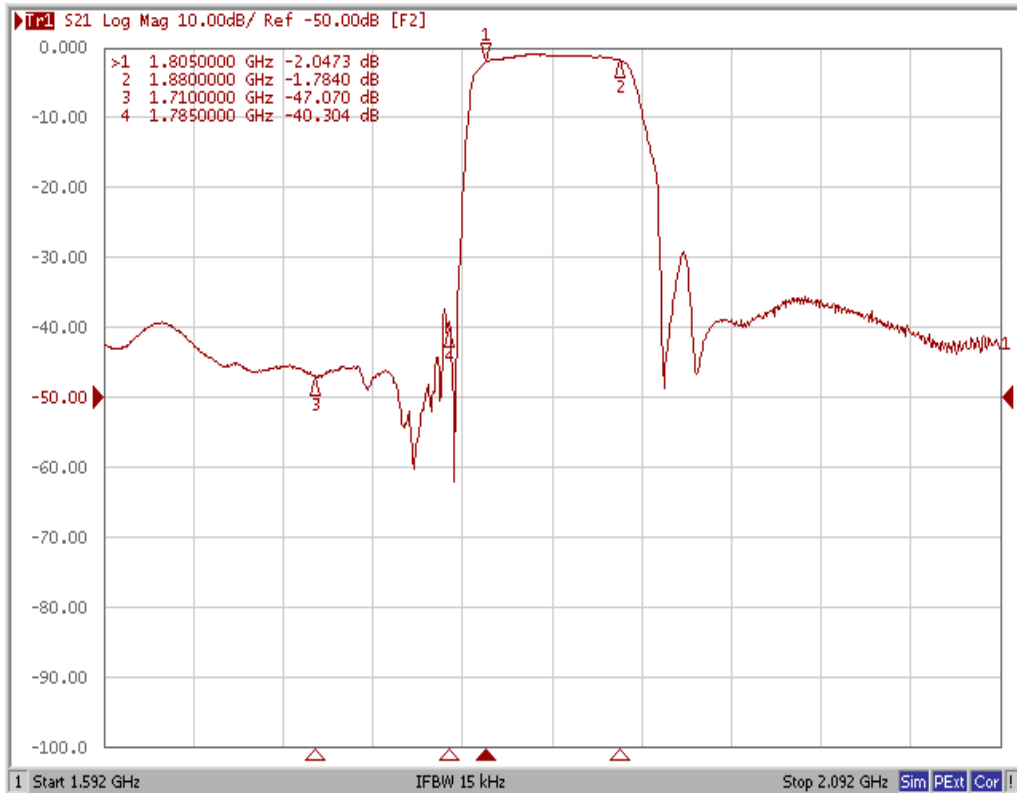
(\*1) Specification of insertion loss excludes loss that comes from the test board.

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**C. FREQUENCY CHARACTERISTICS:**

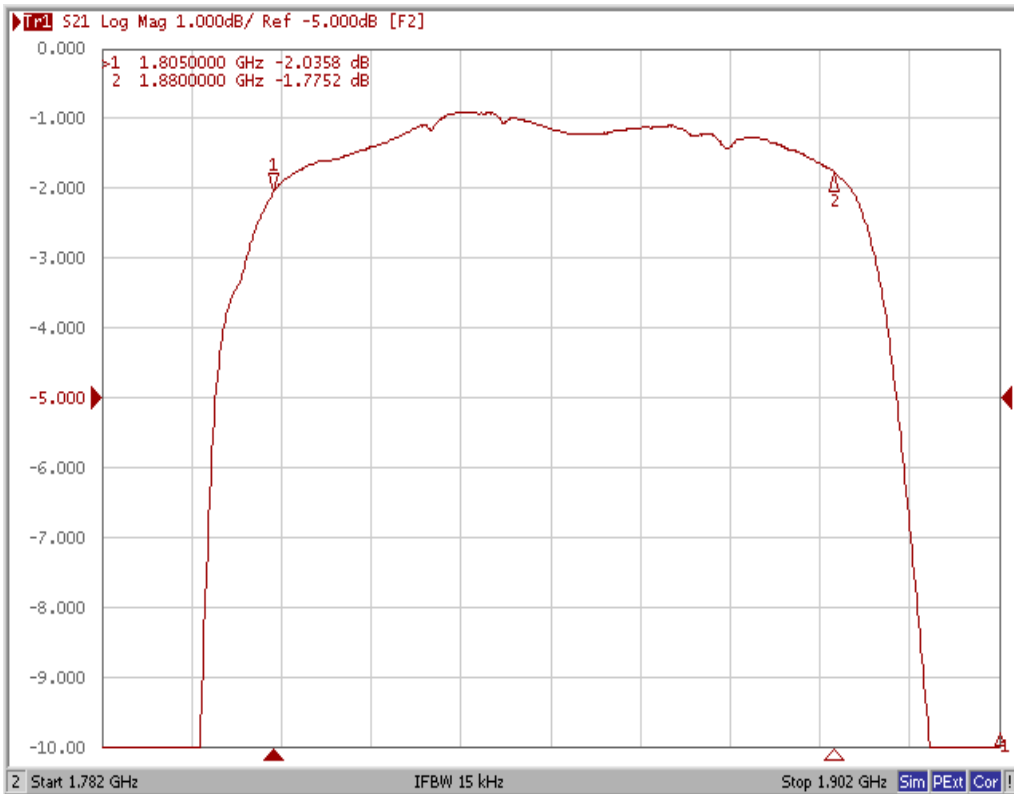
1. Frequency Response



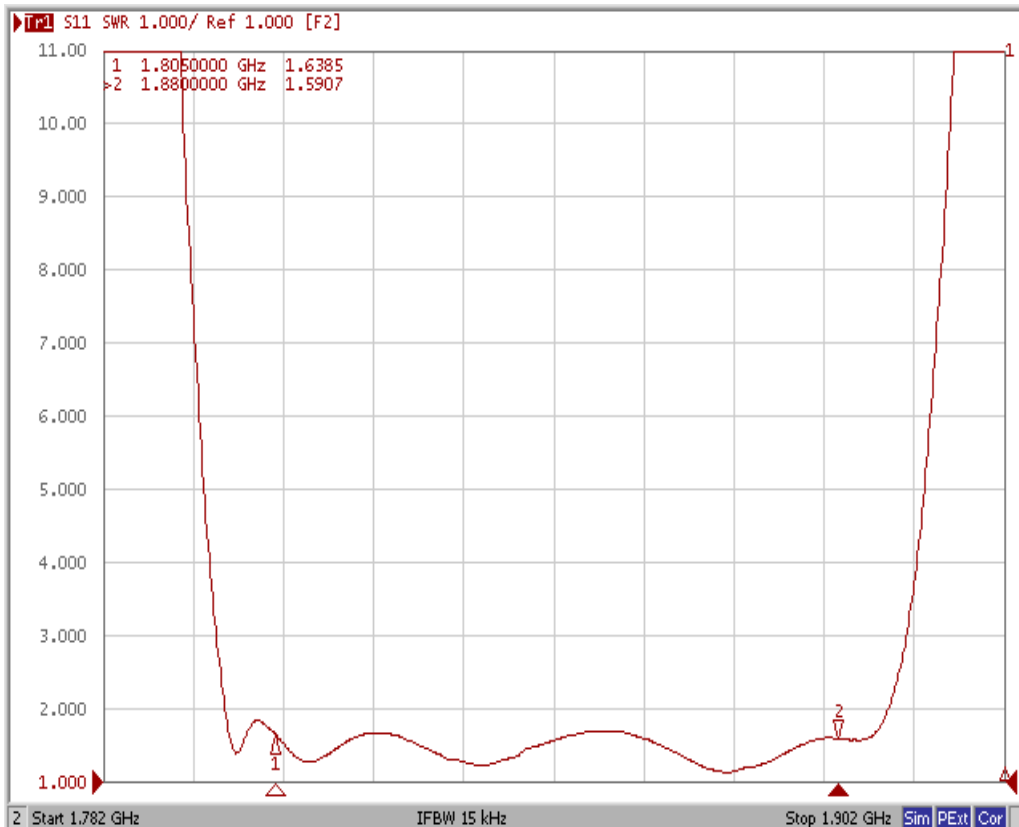
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### 2. Ripple



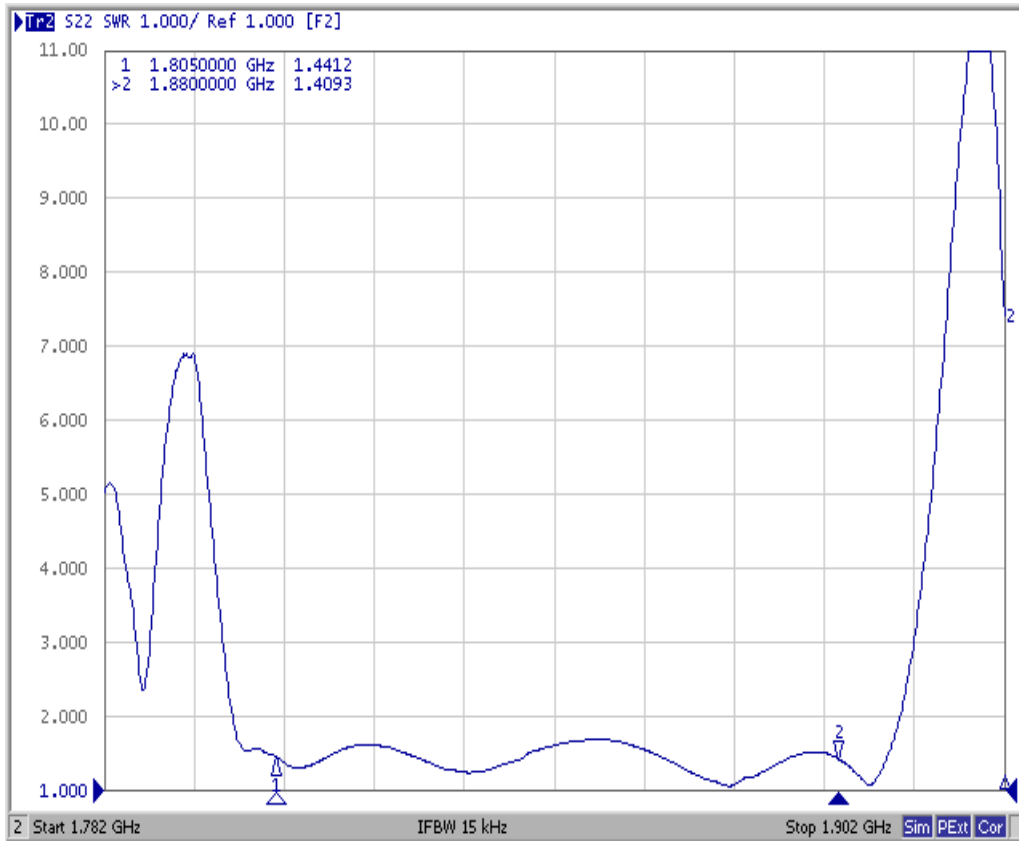
### 3. VSWR (S11)



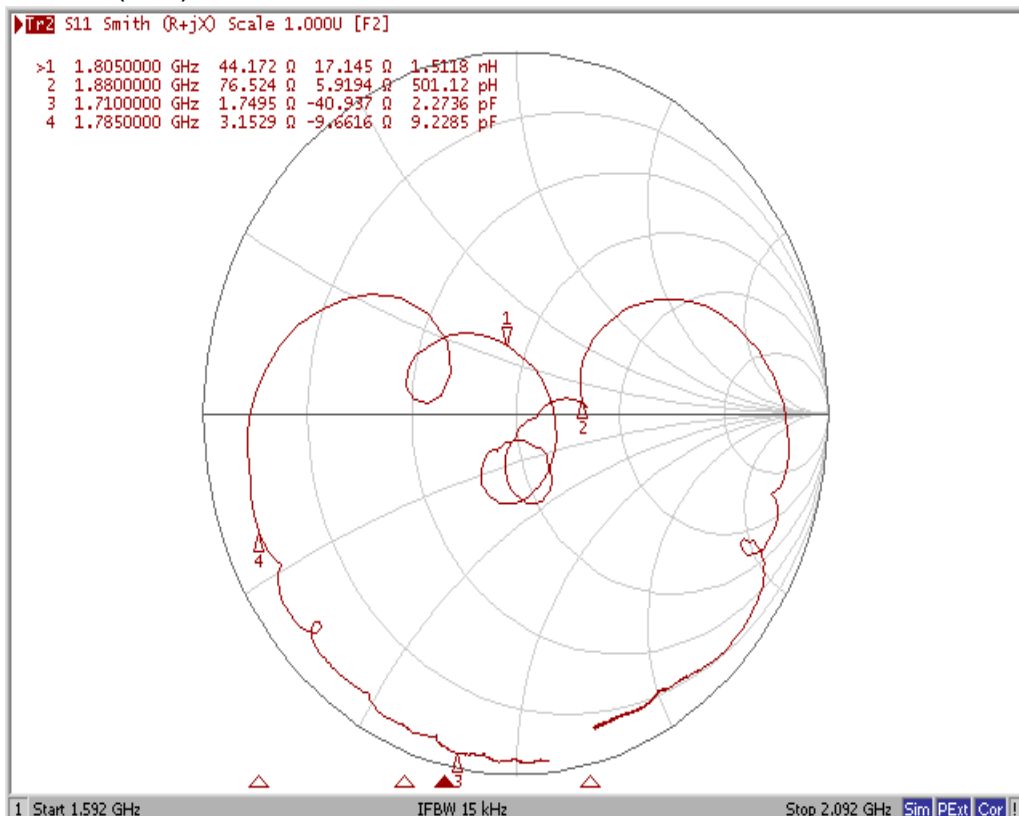
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4. VSWR (S22)



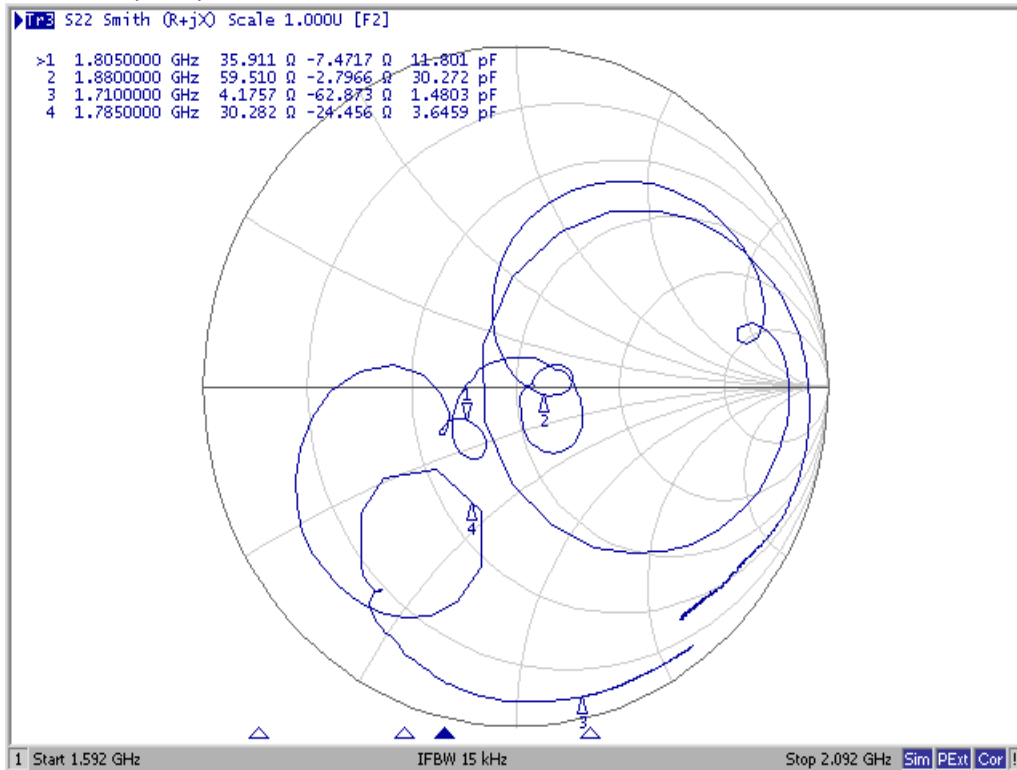
5. Smith Chart (S11)



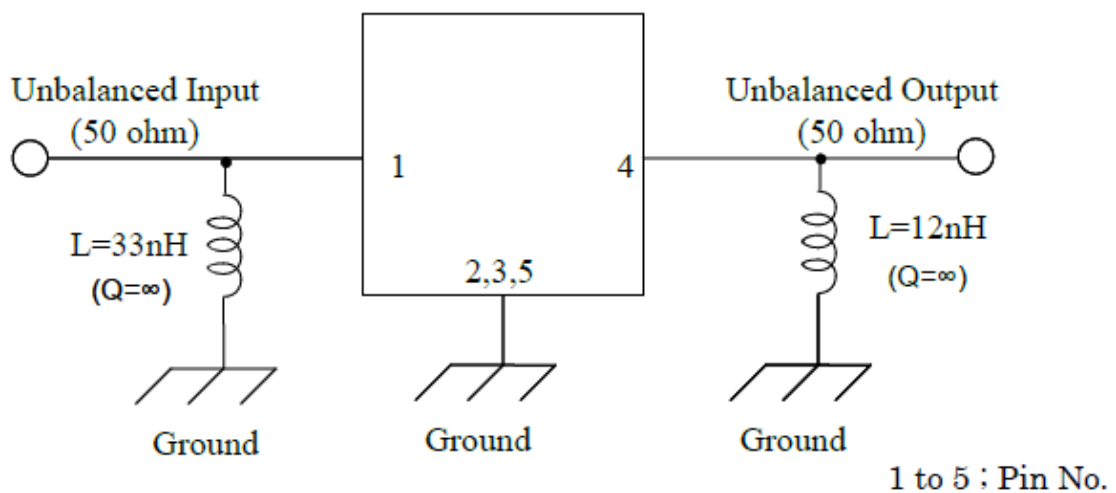
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6. Smith Chart (S22)



**D. MEASUREMENT CIRCUIT:**

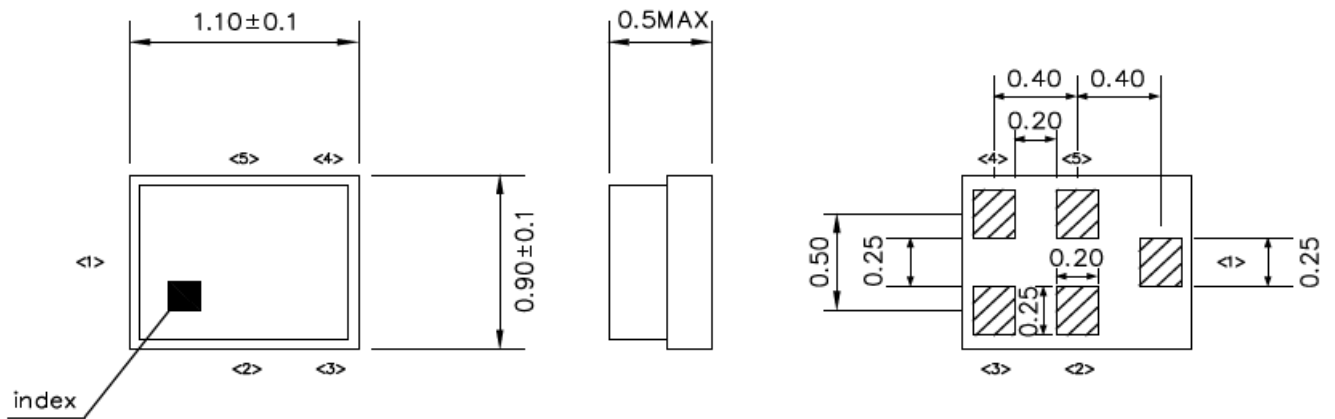


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**E. OUTLINE DRAWING:**

Device size: 1.1typ. x 0.9typ. x 0.5max.



Unit : mm

**Pin Configuration**

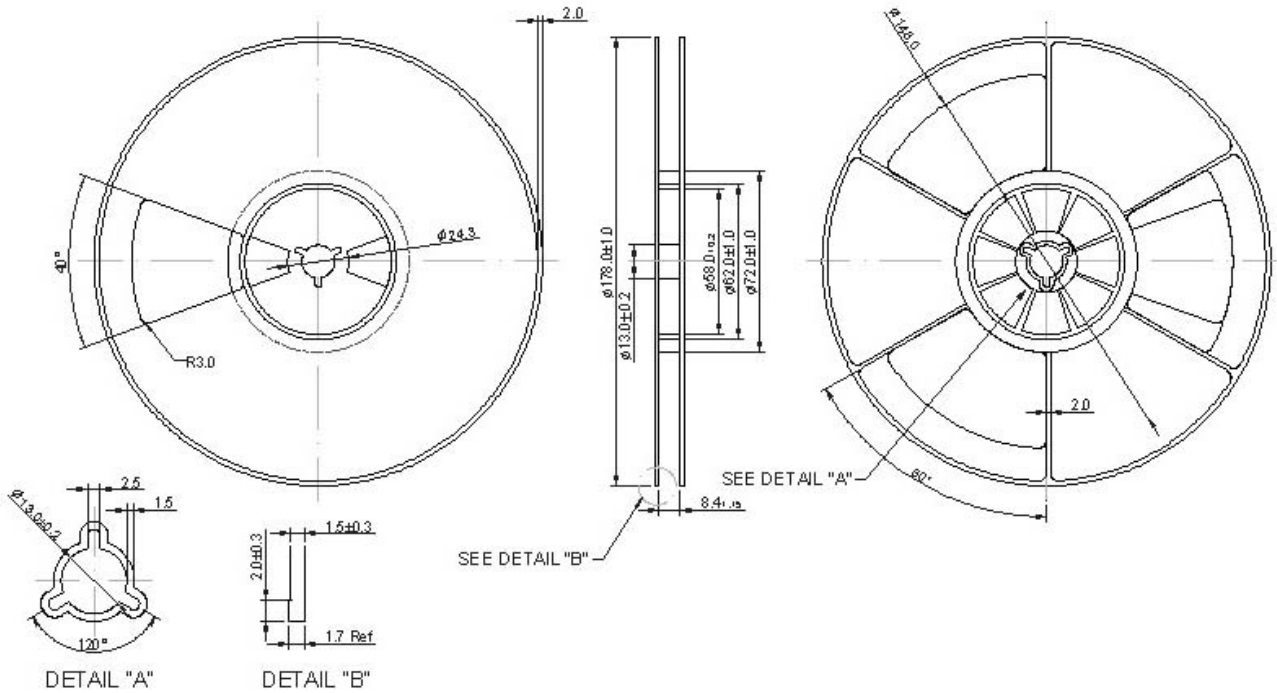
Pin No.	Symbol	Function
1	IN	Unbalanced pin
2	GND	Ground
3	GND	Ground
4	OUT	Unbalanced pin
5	GND	Ground

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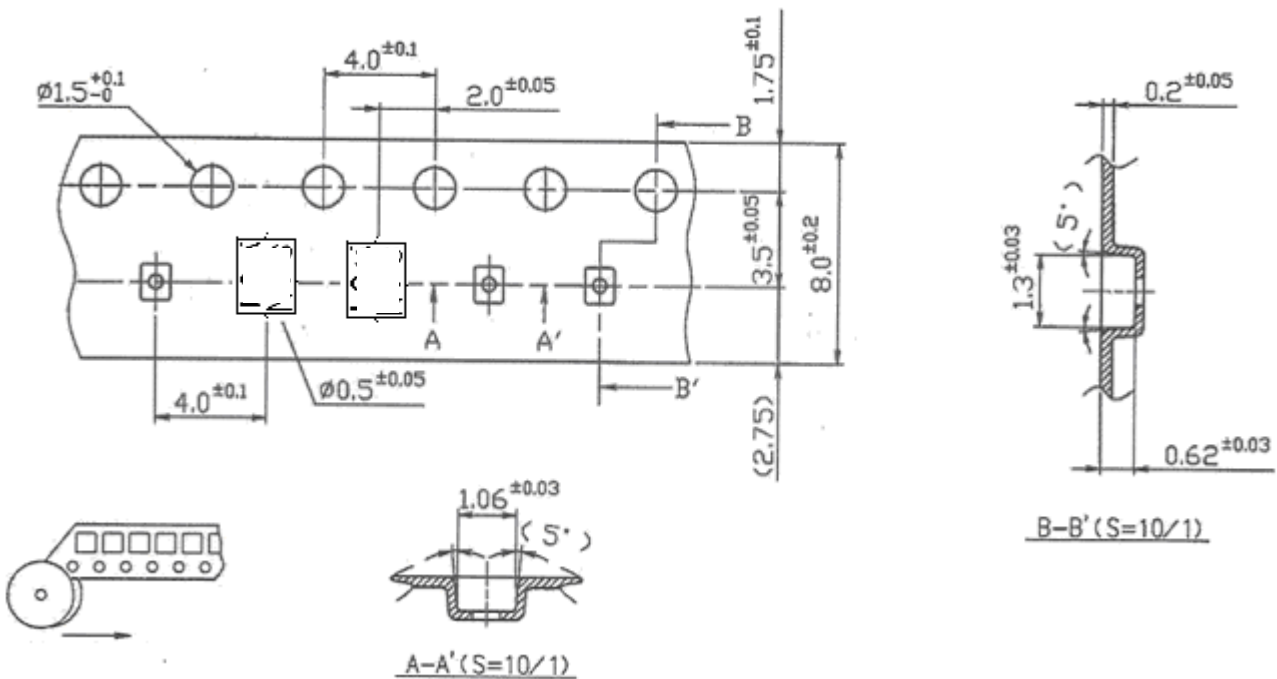
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**F. PACKING:**

**1. Reel Dimension**



**2. Tape Dimension**



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**G. 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.

