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Golledge Electronics Ltd
Eaglewood Park, ILMINSTER
Somerset, TA19 9DQ, UK

SAW Filter 46.20MHz — Model: TB1123A
Part No: MP05679 — Rev No: 2

A. MAXIMUM RATING:

Electrostatic **S**ensitive **D**evice

1. Operating temperature range: -55°C to 85°C
2. Storage temperature range: -55°C to 85°C
3. Input Power Level: 10dBm
4. Maximum DC Voltage: 10V

B. ELECTRICAL CHARACTERISTICS: Ambient Temperature: 25°C

Differential In/Output

Item	Unit	Min.	Typ.	Max.
Center frequency Fc	MHz	-	46.2	-
Insertion Loss IL	dB	-	11.3	14.0
1dB Bandwidth	MHz	-	5.1	-
40dB Bandwidth	MHz	-	11.7	-
Passband Ripple Fc ±1.5MHz	dB	-	0.65	1.20
Absolute group Delay	us	-	0.72	-
Group Delay variation Fc ±1.5MHz	ns	-	90	-
Attenuation (Reference level from minimum Insertion loss)				
54.2MHz ~ 84.2MHz	dB	30	40	-
Temperature Coefficient	ppm/°C	-	-94	-
Source Impedance	Ohm	-	200	-
Load Impedance	Ohm	-	200	-

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SAW Filter 46.20MHz — Model: TB1123A
Part No: MP05679 — Rev No: 2

Differential Input/Single Output

Item	Unit	Min.	Typ.	Max.
Center frequency Fc	MHz	-	46.2	-
Insertion Loss IL	dB	-	11.8	14.0
1dB Bandwidth	MHz	-	5.3	-
40dB Bandwidth	MHz	-	11.9	-
Passband Ripple Fc ±1.5MHz	dB	-	0.75	1.20
Absolute group Delay	us	-	0.70	-
Group Delay variation Fc ±1.5MHz	ns	-	100	-
Attenuation (Reference level from minimum Insertion loss)				
54.2MHz ~ 84.2MHz	dB	30	40	-
Temperature Coefficient	ppm/°C	-	-94	-
Source Impedance	Ohm	-	200	-
Load Impedance	Ohm	-	50	-

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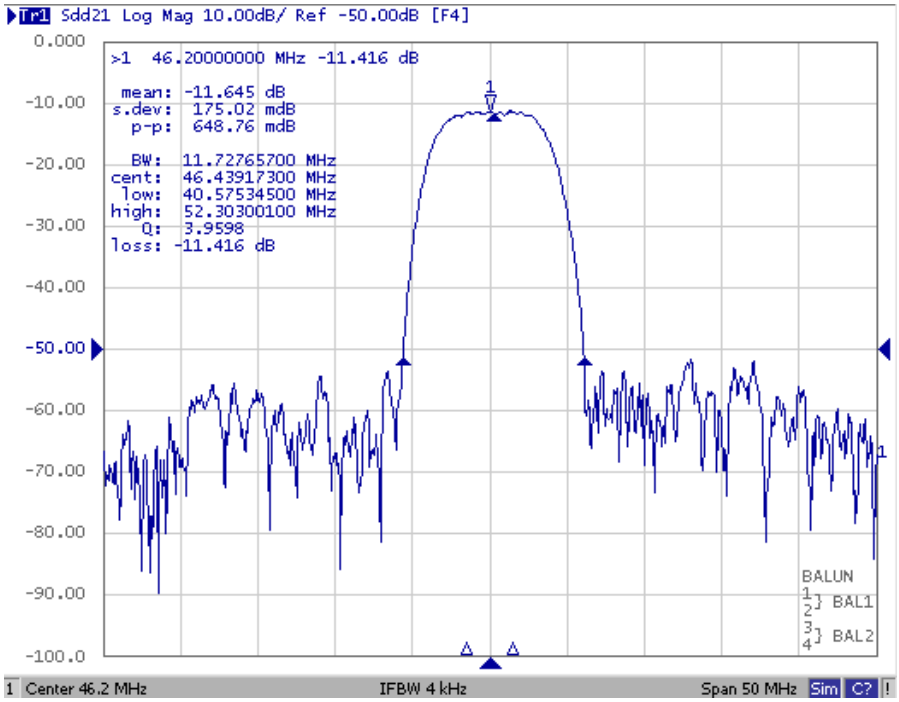
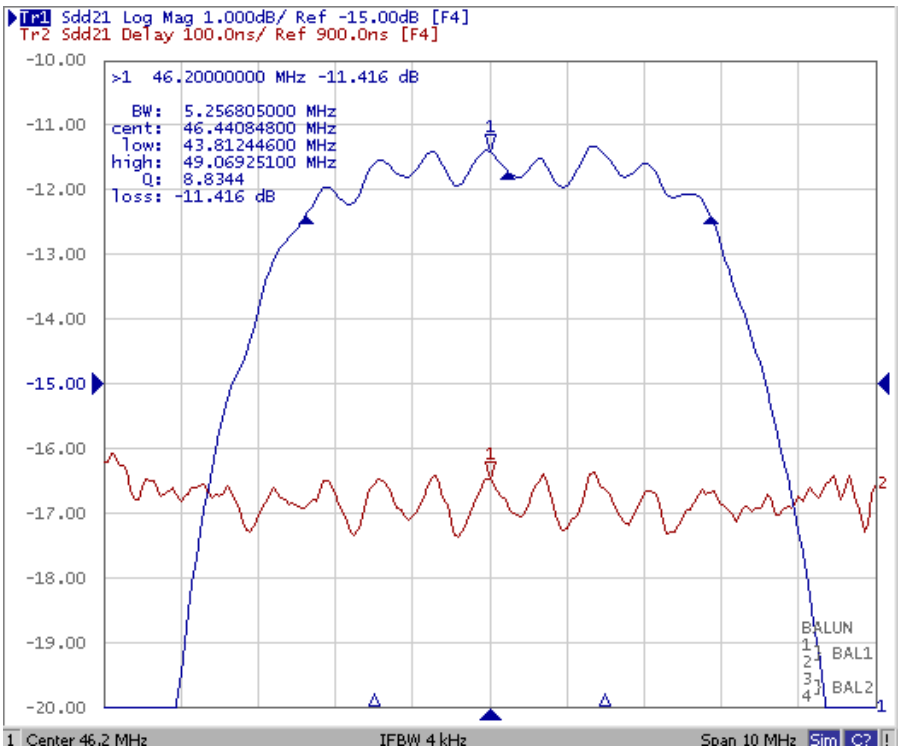
C. FREQUENCY CHARACTERISTICS:

1. Wide band Response: Differential In/Output



2. Pass band Response and Group Delay Response: Differential In/Output



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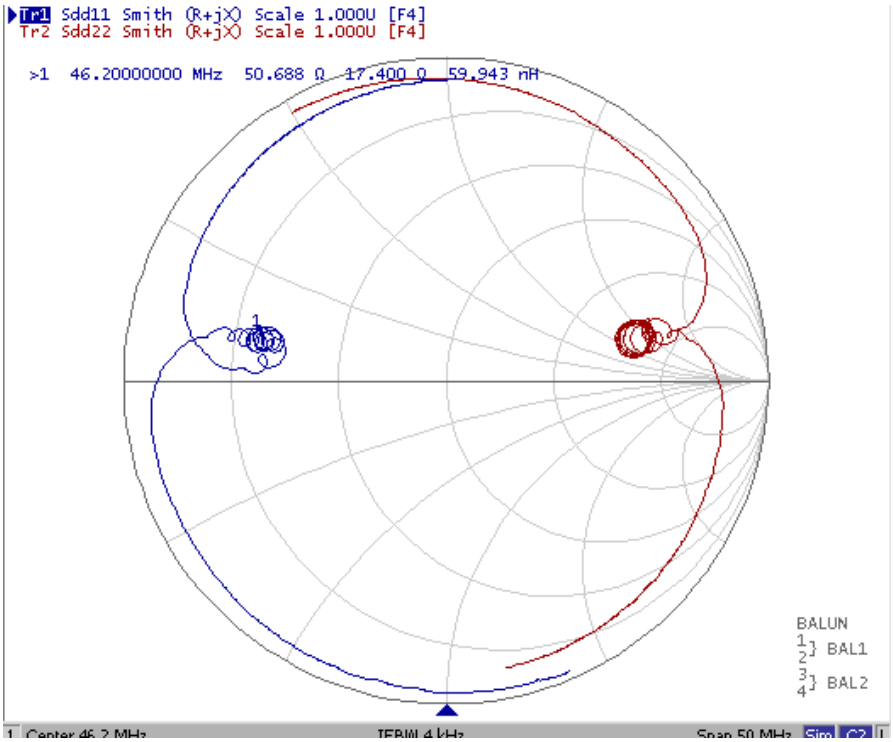
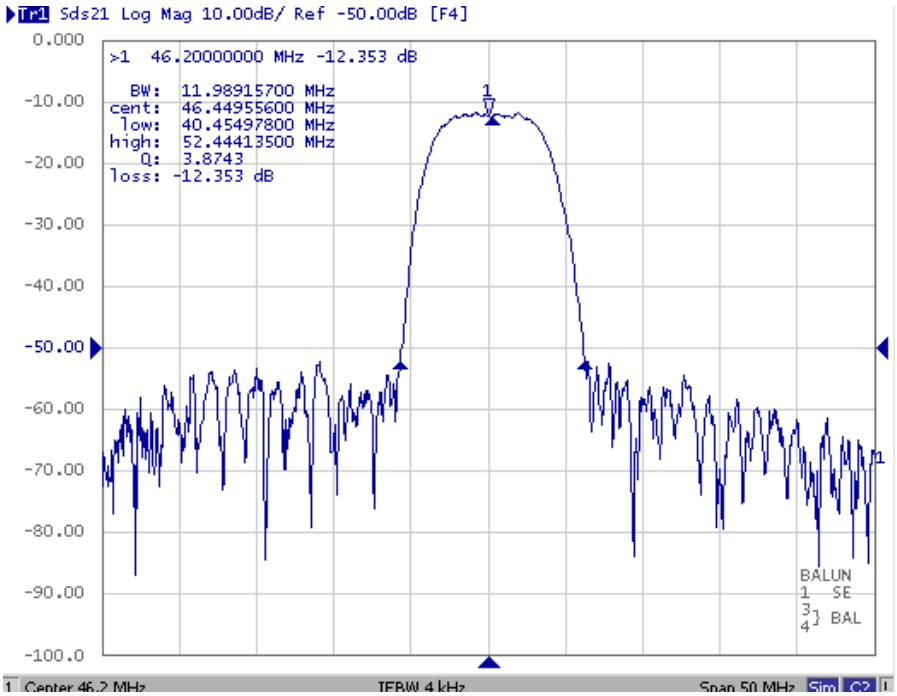
3. Smith Chart: Differential In/Output



4. Wide band Response: Differential Input / Single Output



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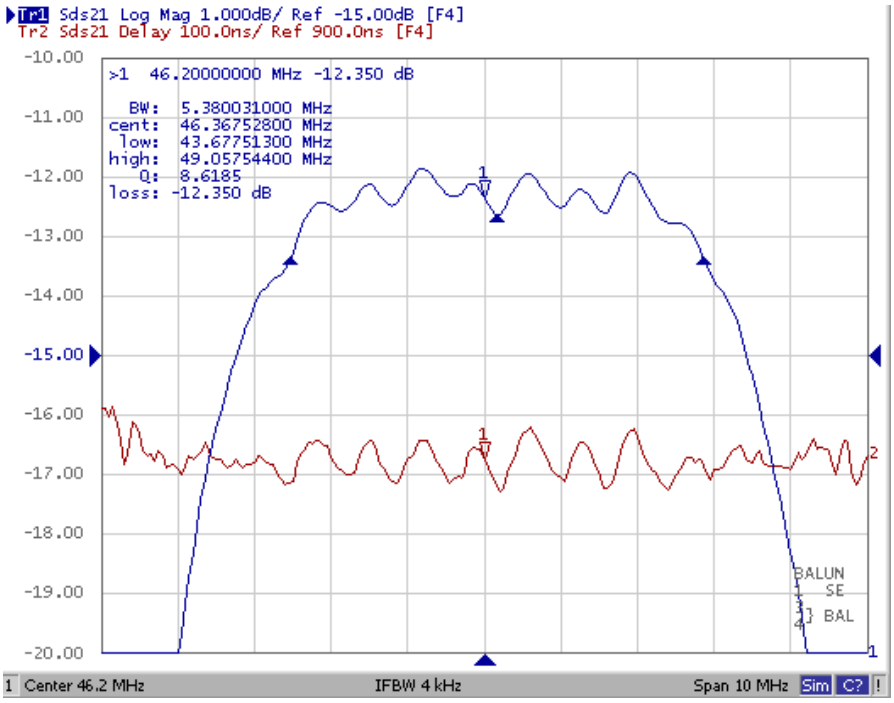
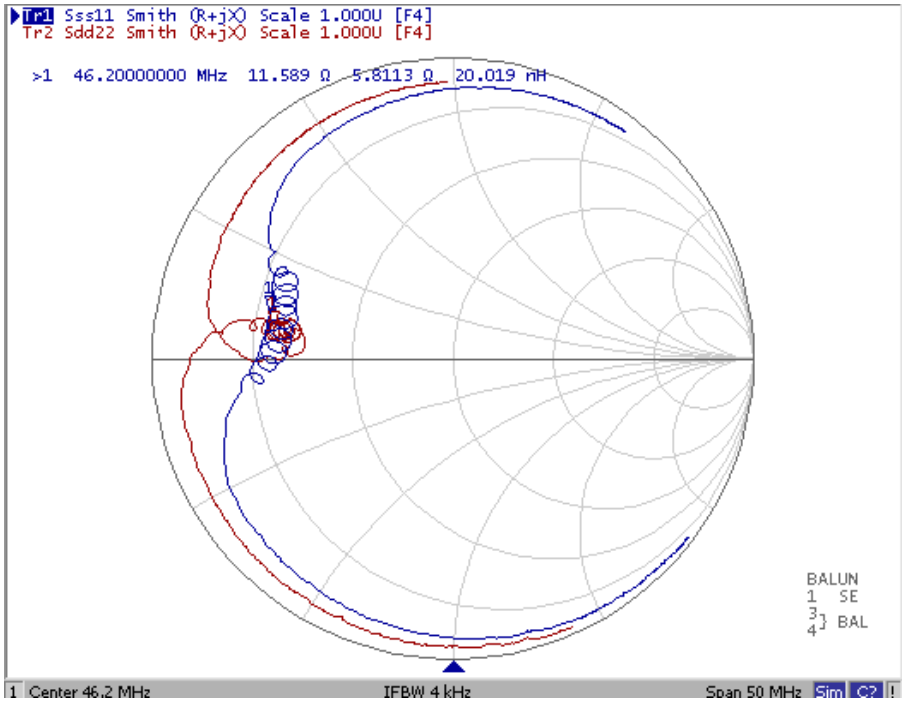
5. Pass band Response and Group Delay Response: Differential Input/Single Output



6. Smith Chart: Differential In/Output: Differential Input / Single Output



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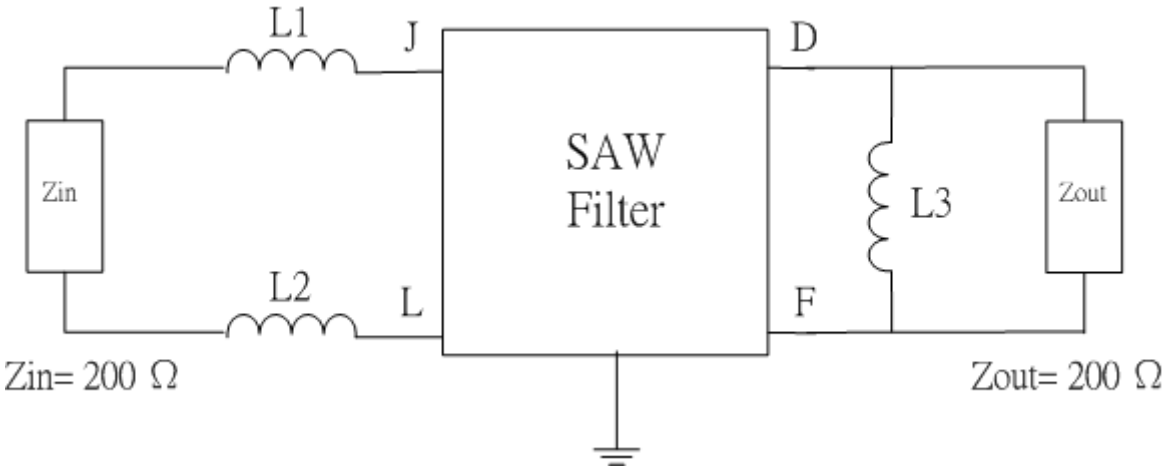
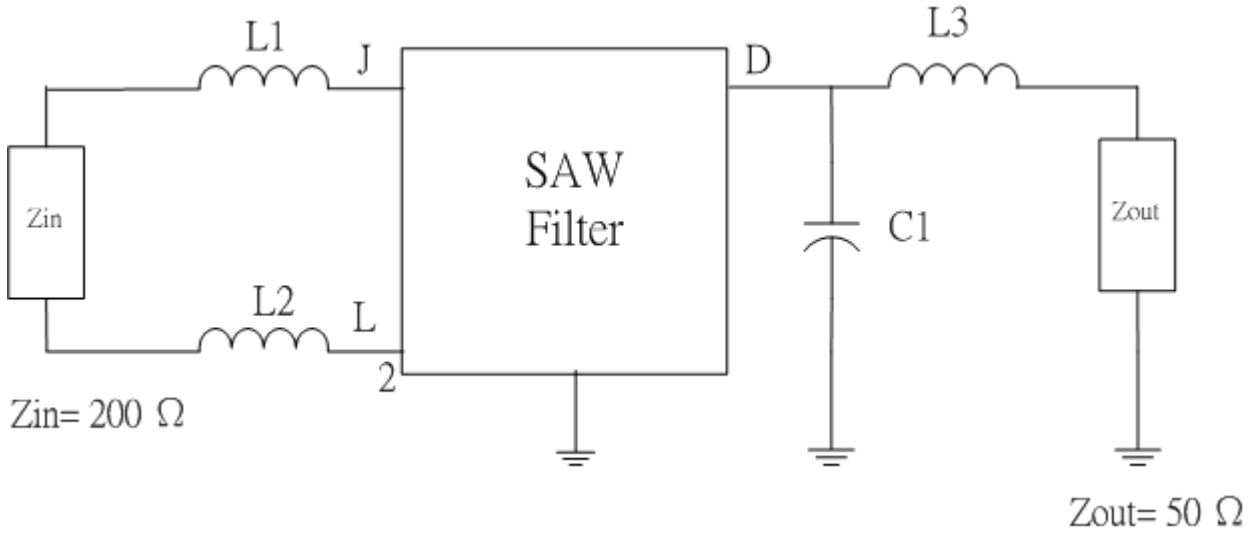
D. MATCHING CIRCUIT:

Differential In/Output



L1 = L2 = 330nH L3 = 680nH

Differential Input/Single Output



L1 = L2 = L3 = 330nH C1 = 20pF

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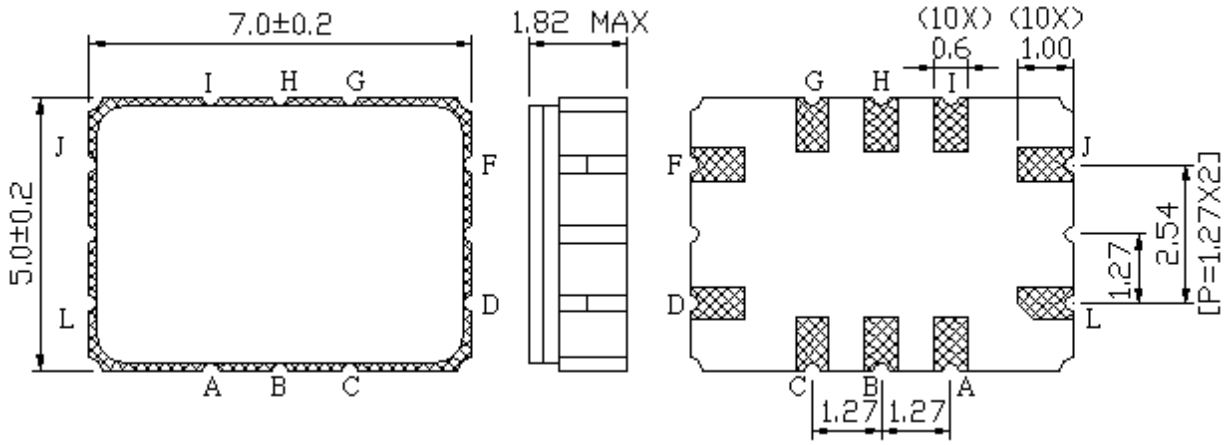
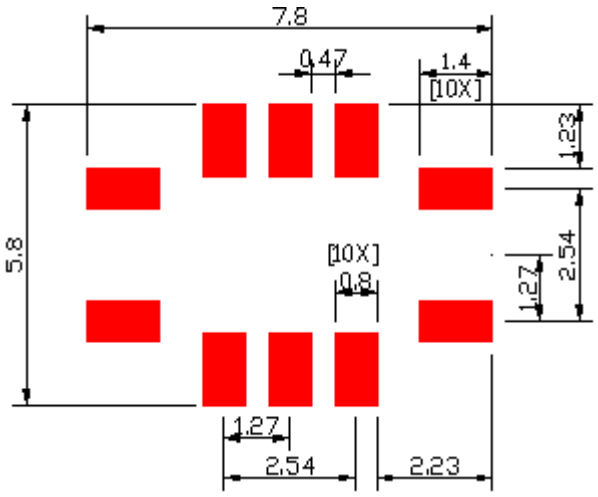
E. OUTLINE DRAWING:



J: RF Input
L: RF Balance Input or to be ground
D: RF Output
F: RF Balance Output or to be ground
A, B, C, G, H, I: Ground
Unit: mm

F. PCB FOOTPRINT:



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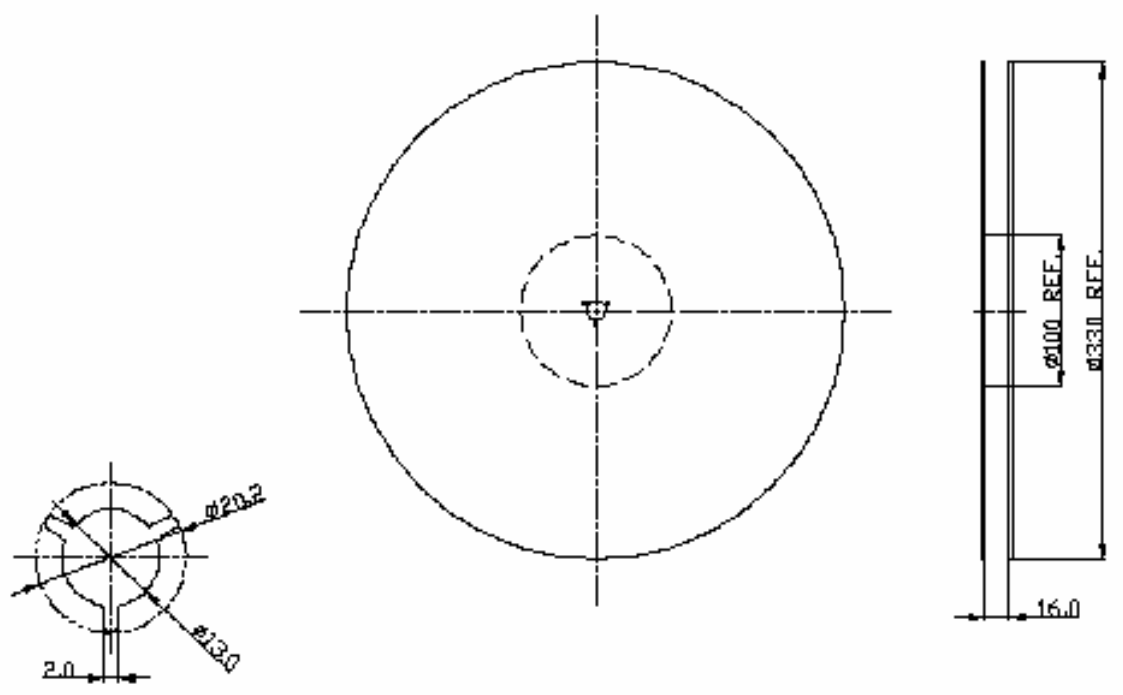
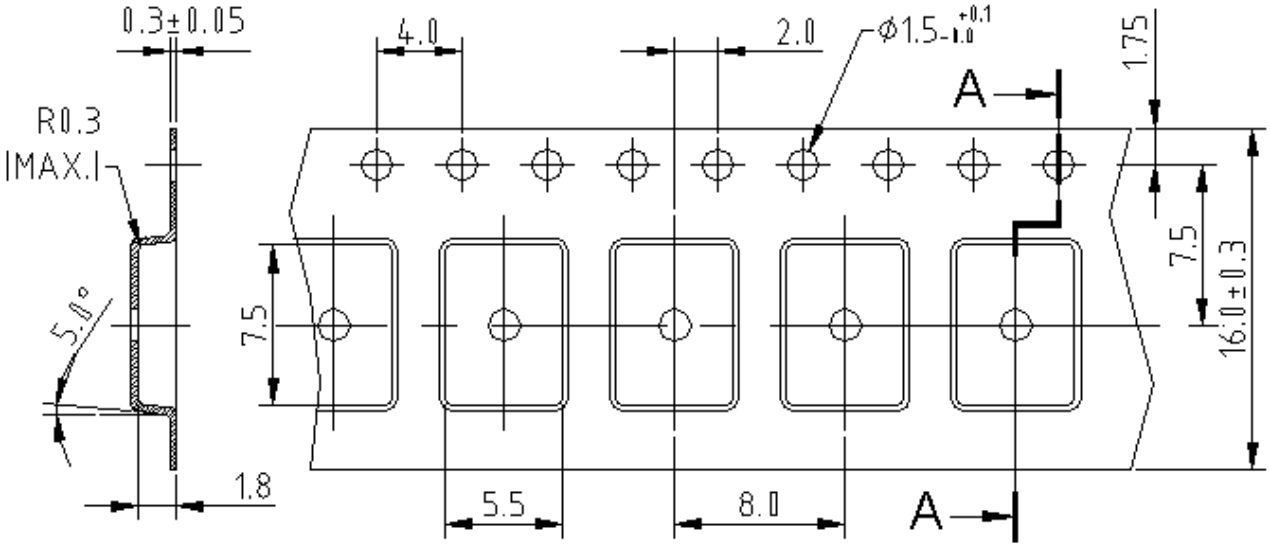
G. PACKING:

1. Reel Dimension (Please refer to FR-75D10 for packing quantity)



2. Tape Dimension



Direction of feed

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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 (20~40sec).
4. Time: 2 times.