

**0.4mm Pitch,0.7mm Height,Board-to-Board/Board-to-FPC Connectors
(BB50 Series)**

**Product Specification
(For External Use)**

Rev.	Description	Written/Date	Checked/Date	Approved/Date
A	New Release	TYLER 12-02-2019	JASON 12-02-2019	JASON 12-02-2019
B	Optimization	TYLER 09-02-2020	JASON 09-02-2020	JASON 09-02-2020
C	Optimization Socket	TYLER 01-29-2021	JASON 01-29-2021	JASON 01-29-2021
D	Plating change	TYLER 10-14-2021	JASON 10-14-2021	JASON 10-14-2021

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Rating	Rated current 0.3A/PIN Rated voltage 50V AC/DC	Operating temperature range : -55ç to +85ç Operating humidity range : 20% to 80%	Storage temperature range: -55ç to +85ç Storage humidity range : 20% to 80%
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Item	Specification	Conditions
1. Insulation resistance	1000 M Ω min.	250V DC
2. Withstanding voltage	No flashover or insulation breakdown.	250V AC /one minute
3. Contact resistance	50 m Ω max initial 100 m Ω max final	Subject mated contacts assembled in housing to 20mV maximum open circuit at 100 mA maximum
4. Vibration	No electrical discontinuity of 1 μ s or more	Frequency: 10 to 55 Hz, single amplitude of 1.5mm, 2 hours along each X,Y,Z, total 6 hours
5. Humidity	Contact resistance: 100 m Ω max. Insulation resistance: 100 M Ω min.	120 hours at temperature of 40ç \pm 2ç and RH of 90% to 95%
6. Temperature cycle	Contact resistance: 100 m Ω max. Insulation resistance: 100 M Ω min.	Temperature: -55ç/+5ç/+35ç/+85ç Duration: 30/10/10/30 (Minutes) 5 cycles
7. Durability	Contact resistance: 100 m Ω max.	30 cycles
8. Resistance to soldering heat	No deformation of components affecting performance.	Reflow: At the recommended temperature profile Manual soldering: 300ç for 3 seconds
9. Salt water spray	1). Appearance shall not be distinct damage. 2). Resistance value after test After test: 100m Ω Maximum. Insulation: 1). Initial: 1000 M Ω Minimum. 2). After test: 100 M Ω Minimum.	Temperature: 35 $^{\circ}$ C \pm 2 $^{\circ}$ C Density of salt water : 5 \pm 1% Duration: 48 hours.
10. Mating&Unmating Force	Mating force: Maximum 100grams/terminal x total terminals. Unmating force: Minimum 30grams/terminal x total terminals.	Measure force necessary to mate assemblies at maximum rate of 25 \pm 3 mm per minute.

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Materials and Finishes

Connectors	Component	Material	Finish		Remarks
Socket	Insulator	LCP	Color : Black		UL94V-0
	Contacts	Phosphor bronze	plating	Contact area: Au 4u” Min, Ni 80-150u”	
				Solder area: Au 2u” Min, Ni 80-150u”	
Hold down	Phosphor bronze	plating	Matte Tin 100-200u” , Ni 80-150u”		
Plug	Insulator	LCP	Color : Black		UL94V-0
	Contacts	Phosphor bronze	plating	Contact area: Au 4u” Min, Ni 80-150u”	
				Solder area: Au 2u” Min, Ni 80-150u”	
Hold down	Phosphor bronze	plating	Solder area: Au 2u” Min, Ni 80-150u”		

Ordering information (Socket)

YXT-BB50-S-02**

1 2 3 4

1. YXT: YXT PRECISION TECHNOLOGY CO., LTD.
2. Series name: BB50 (0.4mm pitch 0.7mm height Board to Board/FPC Connectors)
3. Number of positions: 24、30 S-(Socket)
4. 02 (standard, with hold down)

Ordering information (Plug)

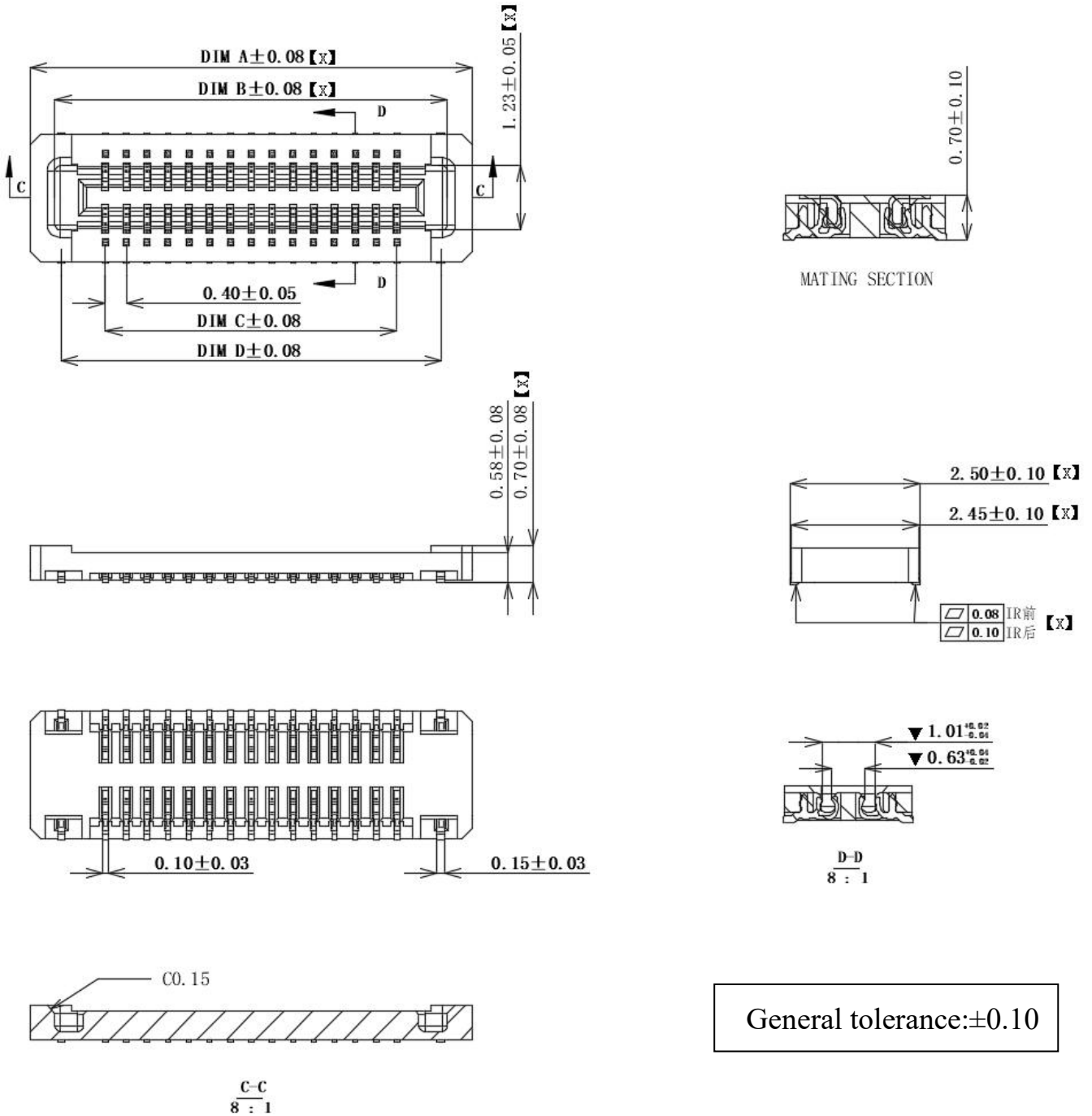
YXT-BB50-P-02**

1 2 3 4

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2. Series name: BB50 (0.4mm pitch 0.7mm height Board to Board/FPC Connectors)
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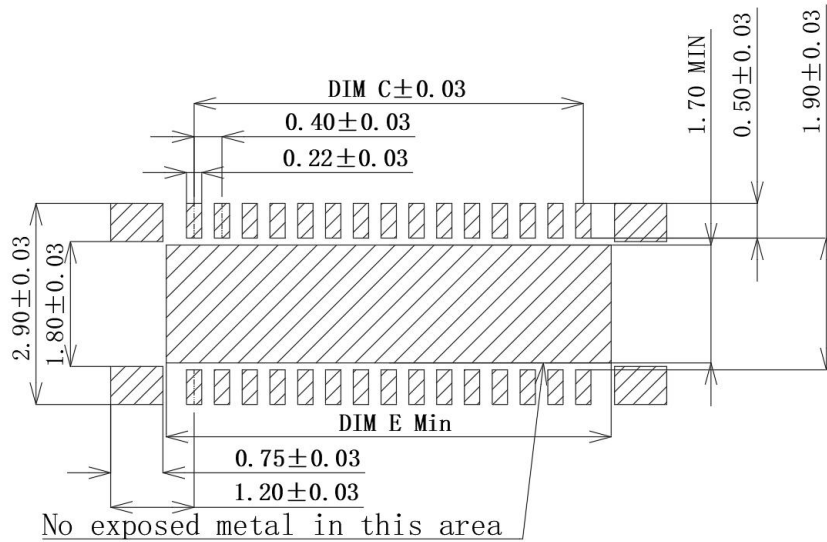
Socket (CAD Data)



General tolerance: ±0.10

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Recommended PCB mounting pattern

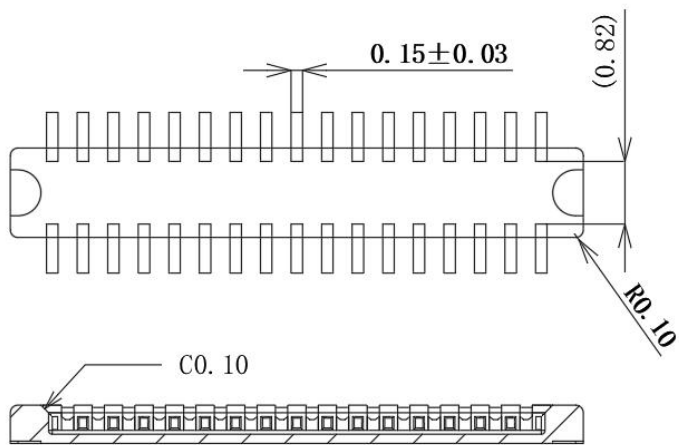
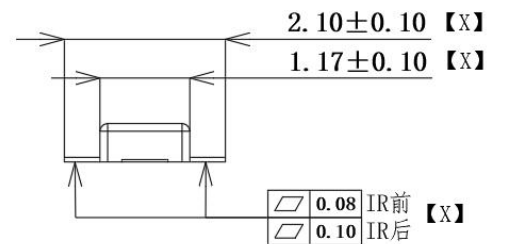
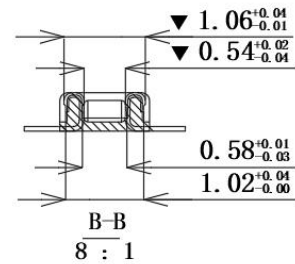
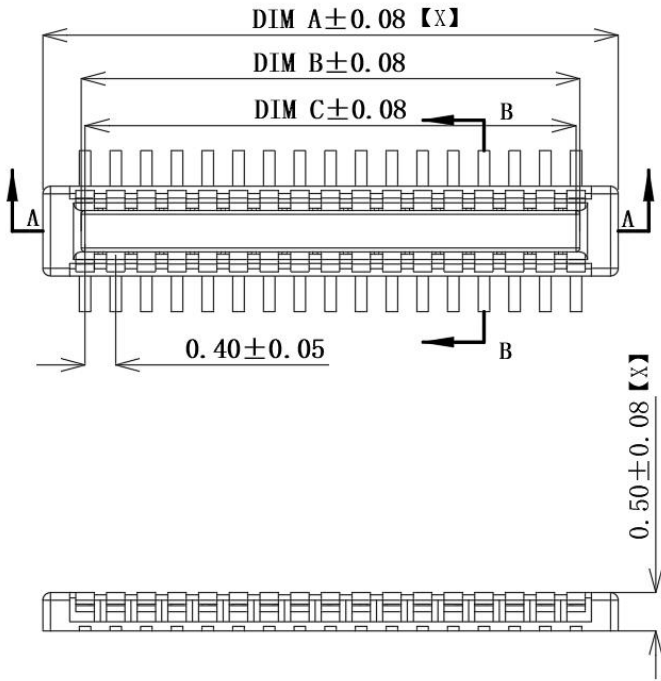


Dimension table (Unit: mm)

Part Number	DIM A	DIM B	DIM C	DIM D	DIM E
YXT-BB50-24S-02	7.30	6.34	4.40	6.09	5.20
YXT-BB50-30S-02	8.50	7.54	5.60	7.29	6.40

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Plug (CAD Data)

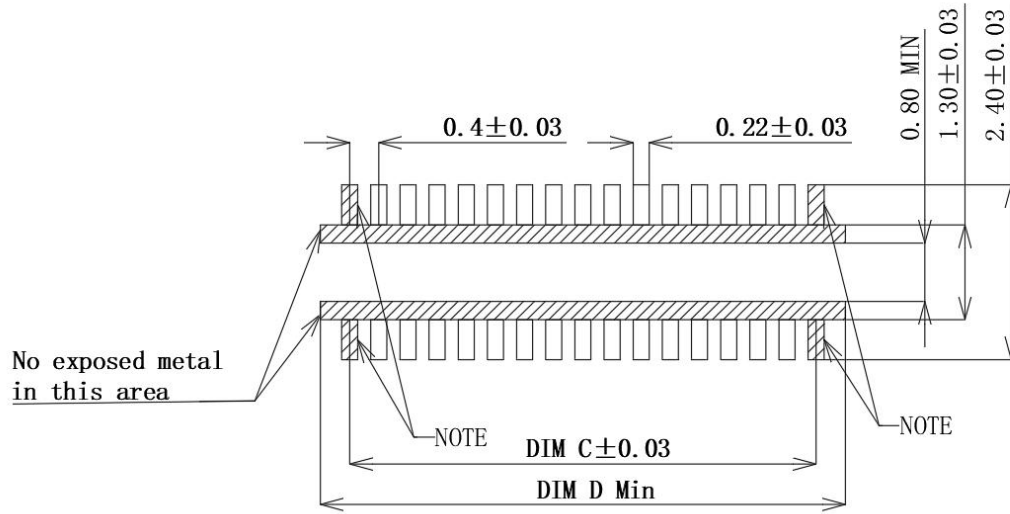


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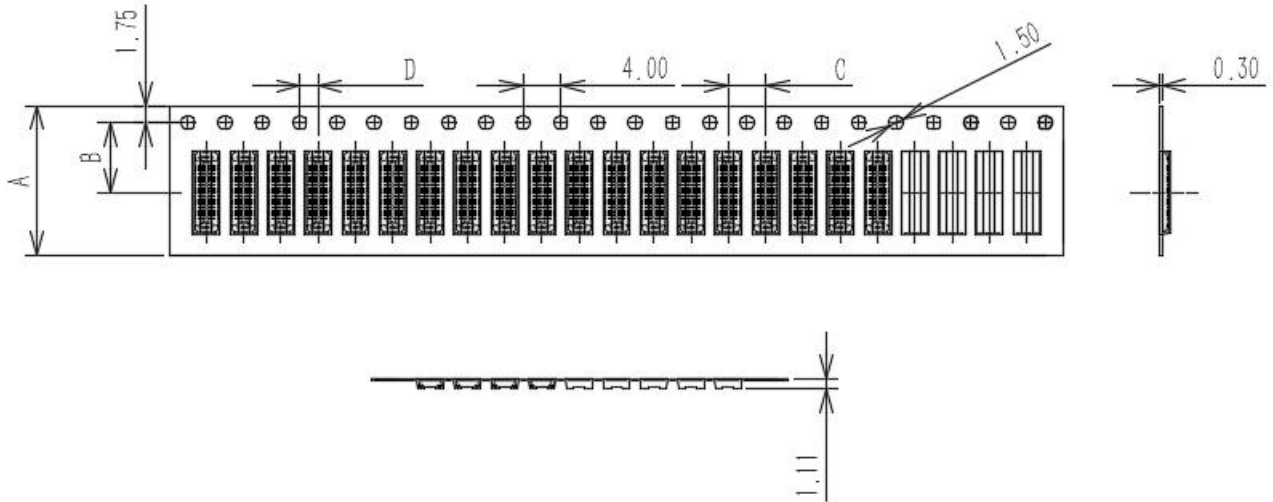
Dimension table (Unit: mm)

Part Number	DIM A	DIM B	DIM C	DIM D
YXT-BB50-24P-02	6.30	5.30	5.20	6.00
YXT-BB50-30P-02	7.50	6.50	6.40	7.20

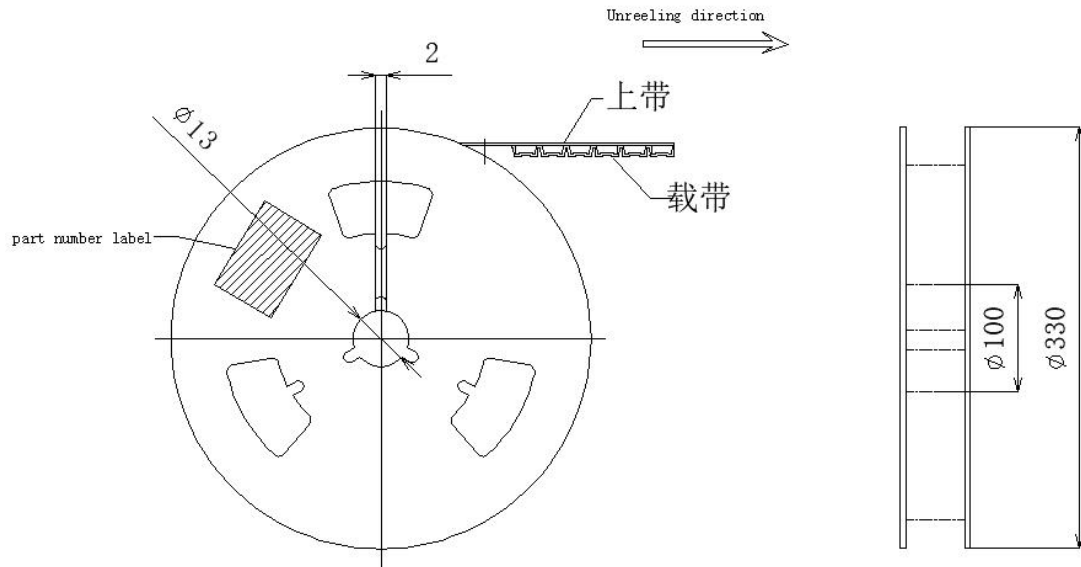
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Packing Specification

Embossed Carrier Tape Dimensions-Socket



Reel Dimensions--Socket



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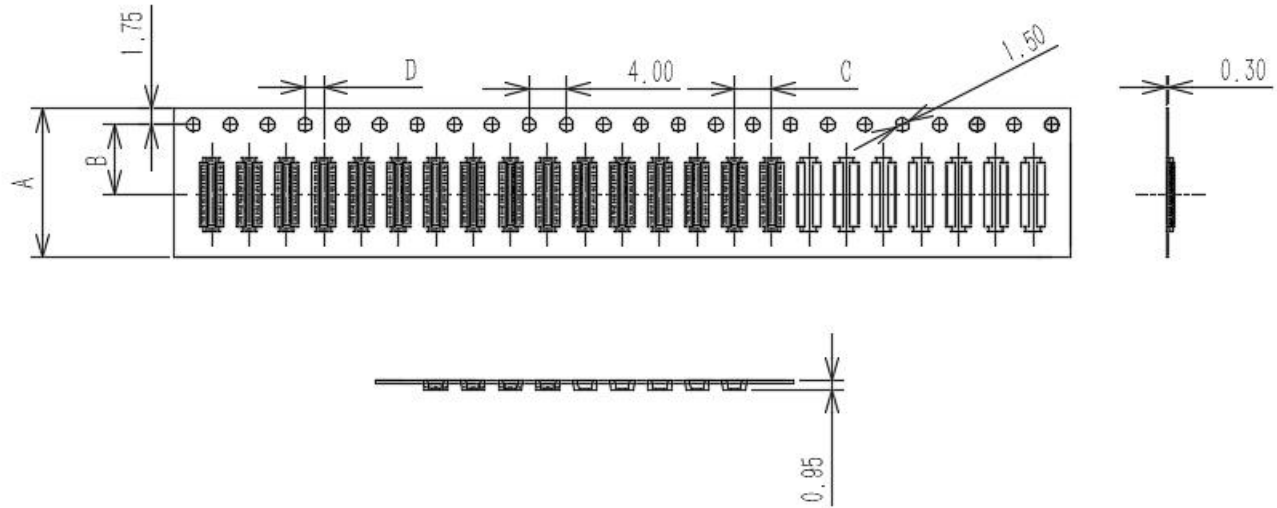
Dimension table (Unit: mm)

Part Number	A	B	C	D	Quantity(PC/REEL)
YXT-BB50-24S-02	16	7.5	4	2	10000
YXT-BB50-30S-02	16	7.5	4	2	10000

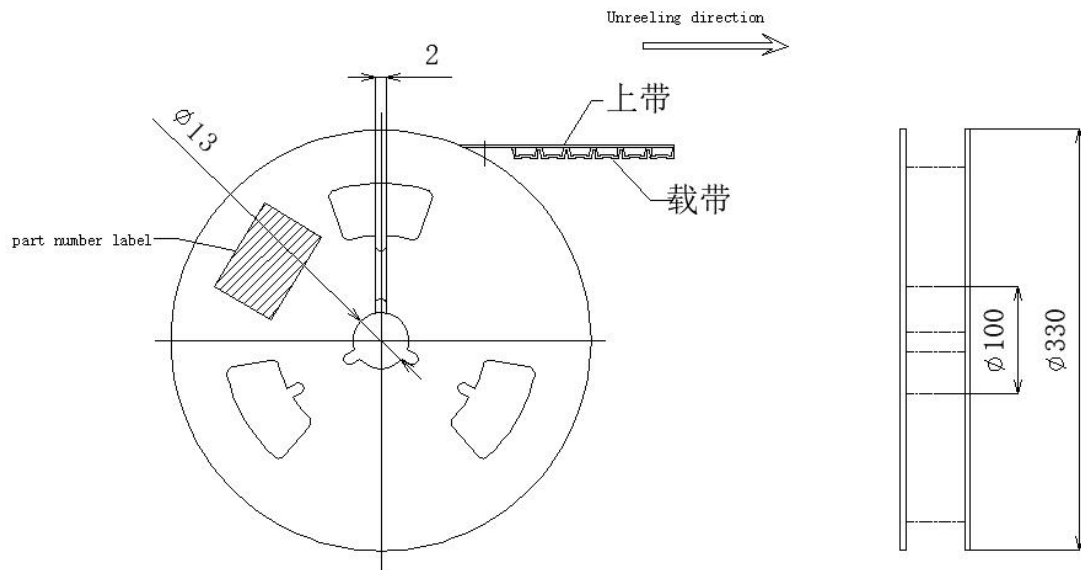
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Embossed Carrier Tape Dimensions-Plug



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