



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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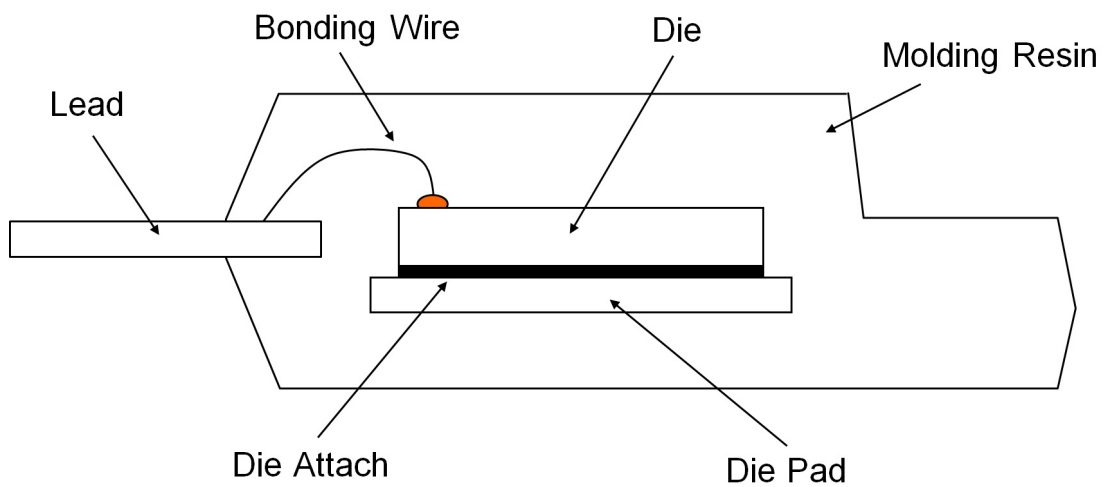
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



## 1. Package Information

Package Name	TO220CP-3
Type	TO
Pin Count	3
Outline Dimension	EX543-5001
Drawing No.	
Package Weight [g]	1.42
Lead Finish	Pure Tin
MSL Level	Level1

## 2. Package Structure



3. Packing Specification

3.1 Packing form, Quantity, PIN1 Orientation

Packing Form		Tape&Reel
Packing Quantity	[pcs]	500
PIN 1 Orientation		E2

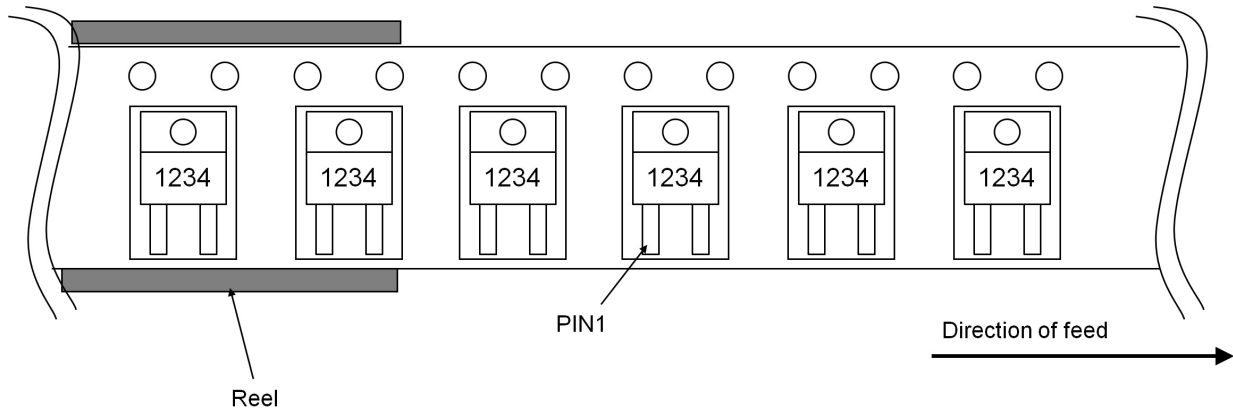


Fig.1 Quadrant Assignments for PIN 1 Orientation in Tape

3.2 Use material

Item	Material
Embossed carrier tape	PS
Cover tape	PET+PE
Reel	PS
Air cap	-
Unit box	Cardboard
Shipping box	Cardboard

3.3 Leader specification

No component pockets are 640 mm or more.

3.4 Trailer specification

No component pockets are 160 mm or more. Tape is free from reel.

3.5 Peelback strength

Cover tape peelback strength is 0.2 N to 0.7 N.

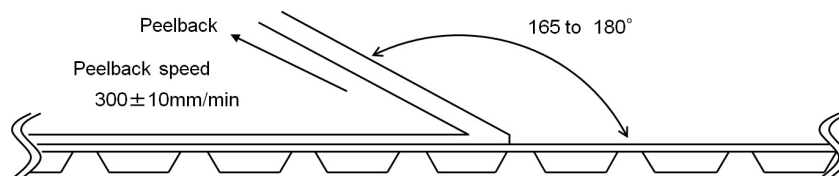


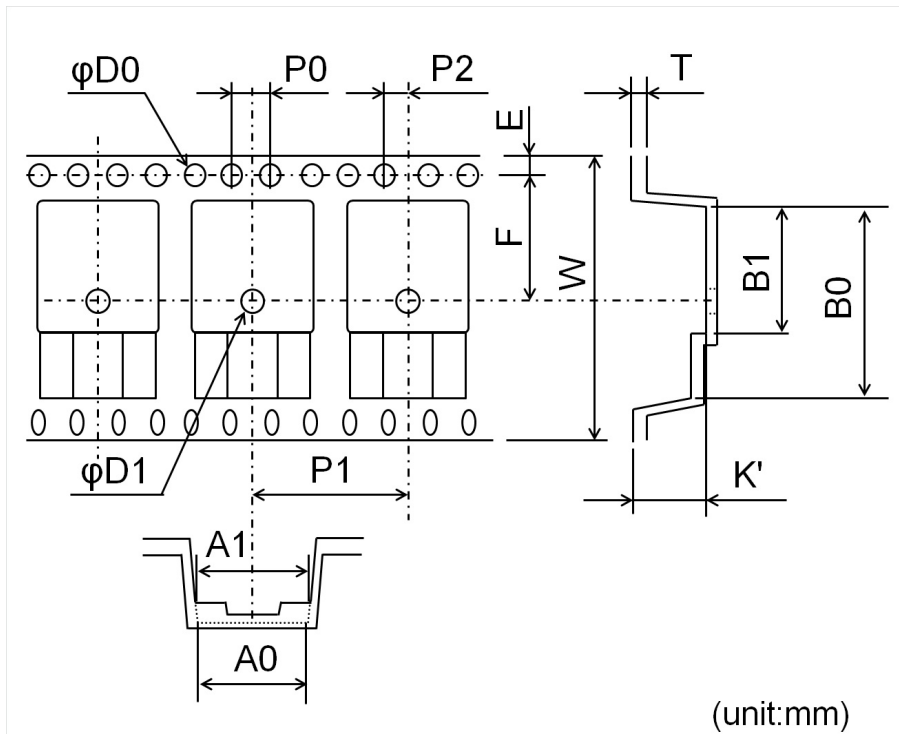
Fig. 2 Test method

3.6 Missing lcs

- (1) No consecutive dropouts.
- (2) A maximum 0.1 % of specified number of products in each packing may be missing.

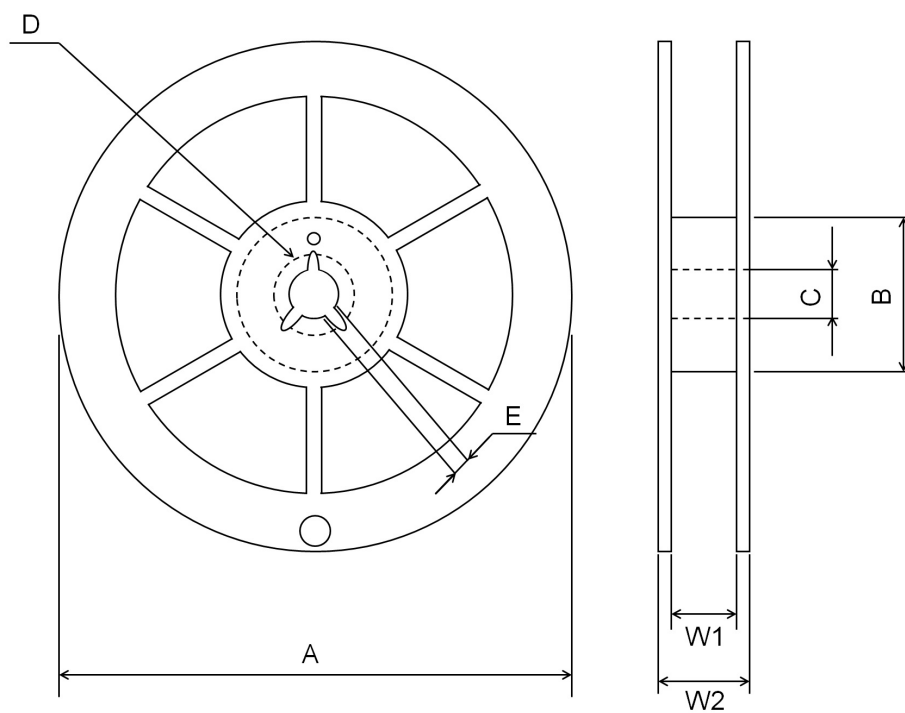
3.7 Tape and Reel Specification

3.7.1 Tape Dimension



	Tape Dimension	Tape Tolerance
A0	10.4	$\pm 0.1$
A1	9.50	$\pm 0.2$
B0	21.6	$\pm 0.2$
B1	15.4	$\pm 0.1$
D0	$\phi 1.5$	+0.1/-0
D1	$\phi 2.0$	MIN
E	1.75	$\pm 0.1$
F	14.2	$\pm 0.1$
K'	4.80	$\pm 0.1$
P0	4.00	$\pm 0.1$
P1	16.0	$\pm 0.1$
P2	2.00	$\pm 0.1$
T	0.35	-
W	32.0	$\pm 0.3$

## 3.7.2 Reel Dimension

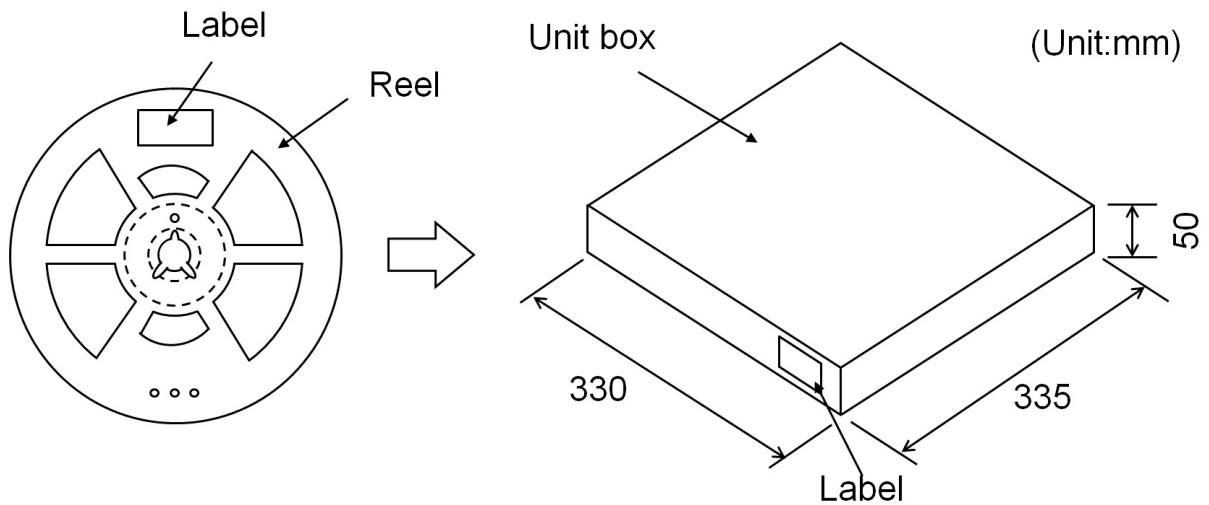


(unit:mm)

	Reel Dimension	Reel Tolerance
A	330	±2.0
B	80	±1.0
C	13	±0.2
D	21	±0.8
E	2	±0.5
W1	33.5	±1.0
W2	37.5	±1.0

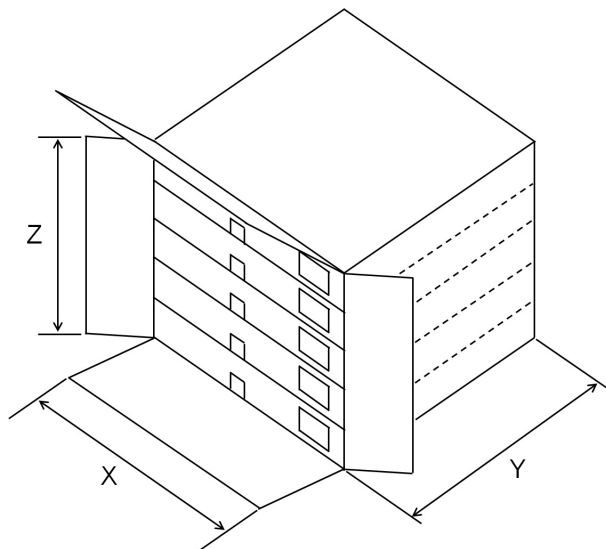
3.8 Packing Method

1 reel(s) or less per unit box



3.9 Packing Style

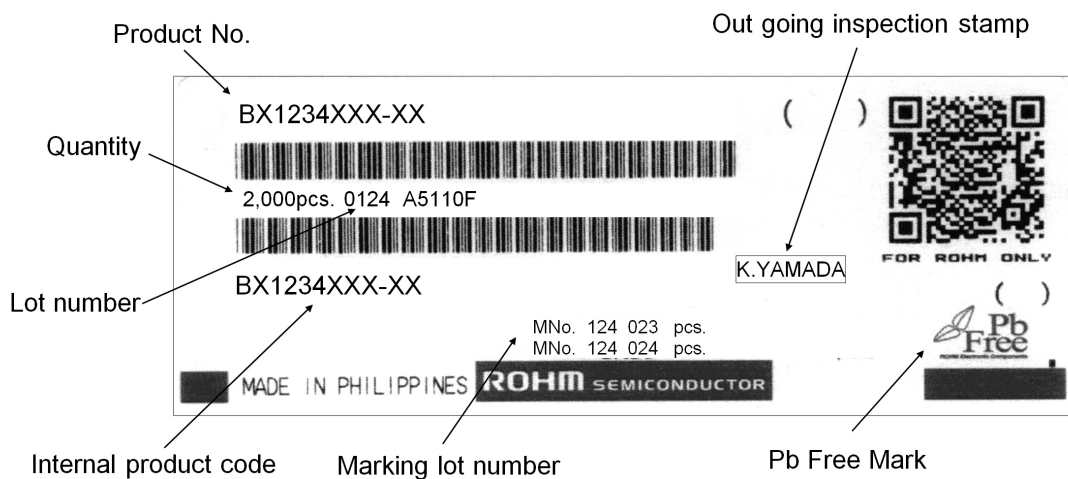
5 unit boxes or less per shipping box



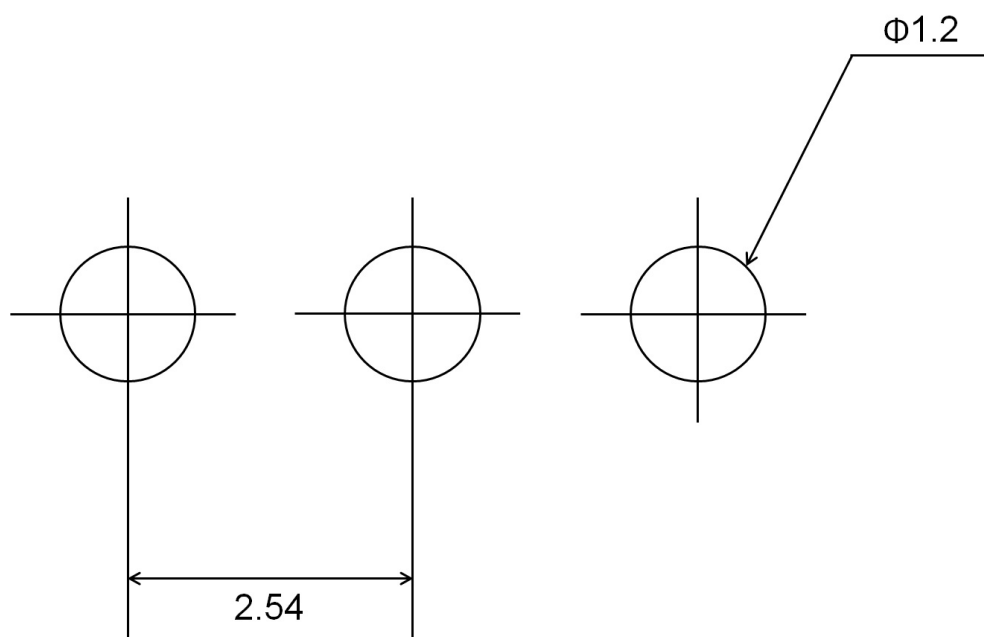
(unit:mm)

Shipping Box Dimension	
X	347
Y	353
Z	287

3.10 Label Specification



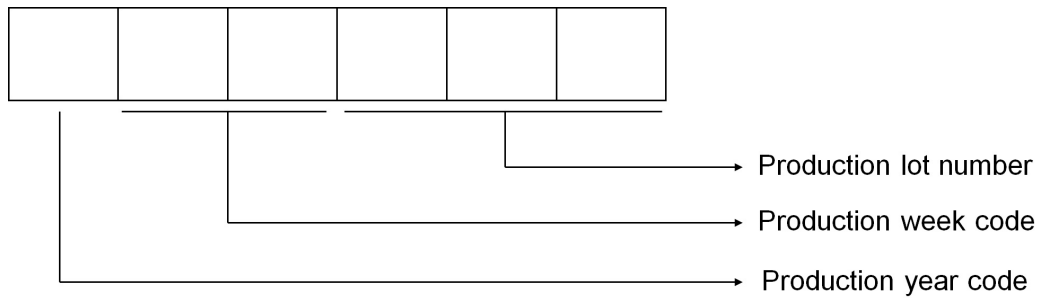
## 4. Footprint dimensions



(unit:mm)

In actual design, please optimize in accordance with the situation of your board design and soldering condition.

5. Marking Specification



6. Storage conditions

6.1 Storage environment

Recommended storage conditions

	Min.	Max.	Unit
Temperature	5	30	°C
Humidity	40	70	% RH

6.2 Storage period

	Min.	Max.	Unit
Storage period	-	1	year

7. Soldering conditions

7.1 Recommended condition for wave soldering

Preheating temperature	:	120 °C to 150 °C
Preheating time	:	60 sec MAX
Soldering temperature	:	260 °C ± 3 °C
Soldering time	:	12 sec MAX

Notes for wave soldering

- (1) Soldering time is provided for total soldering time in case of dual wave soldering.
- (2) Do not use other soldering methods with wave soldering.
- (3) Recommend to clean the board to eliminate flux, solder waste, and other impurities for reliability, after soldering.
- (4) Optimize soldering condition to prevent solder bridging.

7.2 Recommended condition for solder iron

Solder iron temperature	:	380 °C or less
Mounting time	:	4 sec or less

## Notes

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