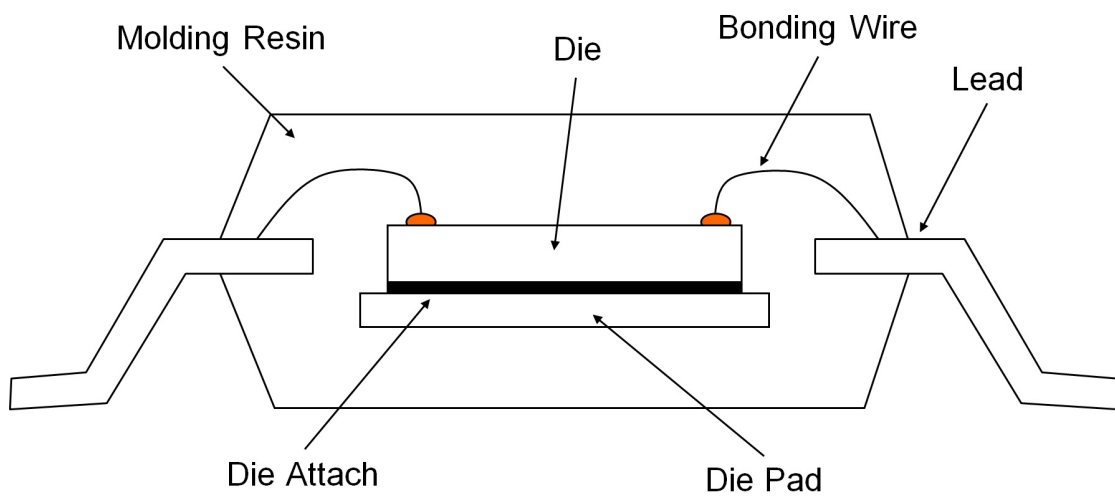


1. Package Information

| | |
|--------------------|--------------|
| Package Name | SSOP-A24 |
| Type | SOP |
| Pin Count | 24 |
| Outline Dimension | EX133-5001-1 |
| Drawing No. | |
| Package Weight [g] | 0.25 |
| Lead Finish | PureTin |
| MSL Level | Level1 |

2. Package Structure



3. Packing Specification

3.1 Packing form, Quantity, PIN1 Orientation

| | | |
|-------------------|-------|-----------|
| Packing Form | | Tape&Reel |
| Packing Quantity | [pcs] | 2,000 |
| PIN 1 Orientation | | E2 |

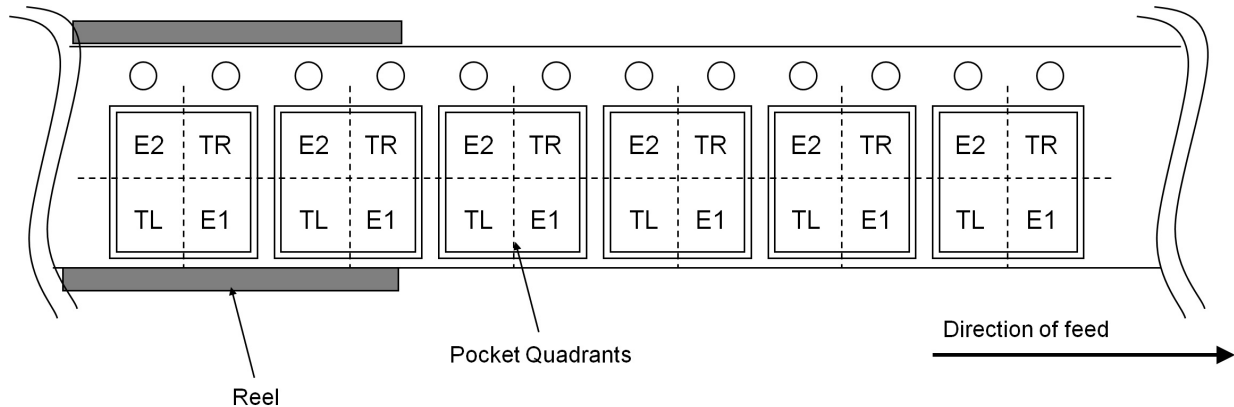


Fig.1 Quadrant Assignments for PIN 1 Orientation in Tape

E2 : PIN1 is placed to the top left corner.

TR : PIN1 is placed to the top right corner.

TL : PIN1 is placed to the lower left.

E1 : PIN1 is placed to the lower right.

3.2 Use material

| Item | Material |
|-----------------------|--------------------|
| Embossed carrier tape | PS |
| Cover tape | PET+PE |
| Reel | PS |
| Desiccant | Silicagel |
| Envelope | Aluminum-laminated |
| Air cap | PE |
| Unit box | Cardboard |
| Shipping box | Cardboard |

3.3 Leader specification

No component pockets are 480 mm or more.

3.4 Trailer specification

No component pockets are 120 mm or more. Tape is free from reel.

3.5 Peelback strength

Cover tape peelback strength is 0.2 N to 0.7 N.

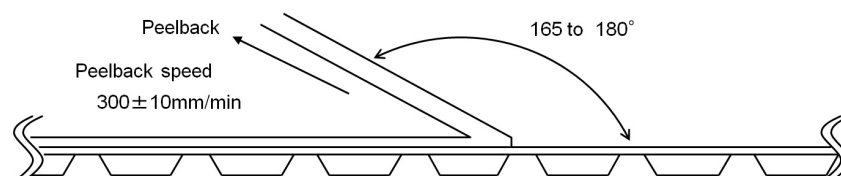


Fig. 2 Test method

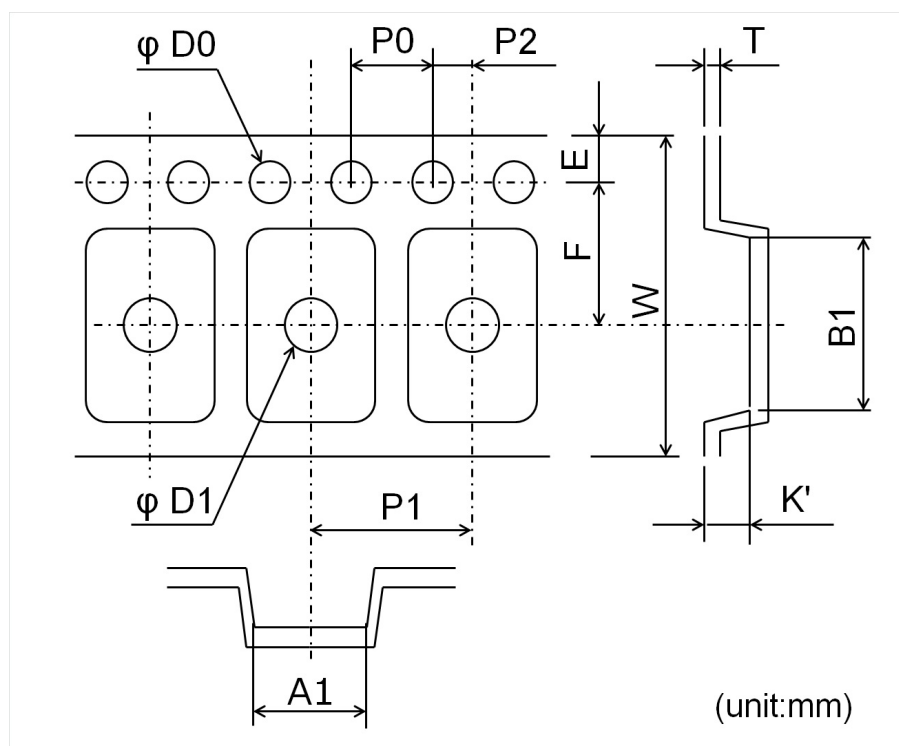
3.6 Missing lcs

(1) No consecutive dropouts.

(2) A maximum 0.1 % of specified number of products in each packing may be missing.

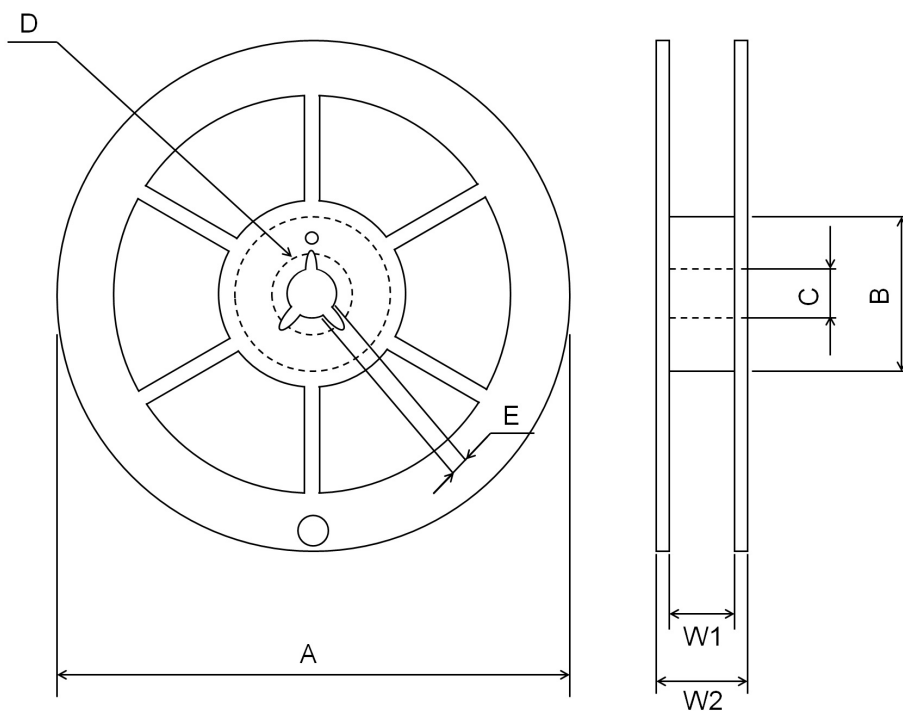
3.7 Tape and Reel Specification

3.7.1 Tape Dimension



| | Tape Dimension | Tape Tolerance |
|----|----------------|----------------|
| A1 | 8.40 | ±0.1 |
| B1 | 10.5 | ±0.1 |
| D0 | φ1.5 | +0.1/-0 |
| D1 | φ1.75 | MIN |
| E | 1.75 | ±0.1 |
| F | 7.5 | ±0.1 |
| K' | 2.30 | ±0.1 |
| P0 | 4.00 | ±0.1 |
| P1 | 12.0 | ±0.1 |
| P2 | 2.00 | ±0.1 |
| T | 0.30 | - |
| W | 16.0 | ±0.3 |

3.7.2 Reel Dimension

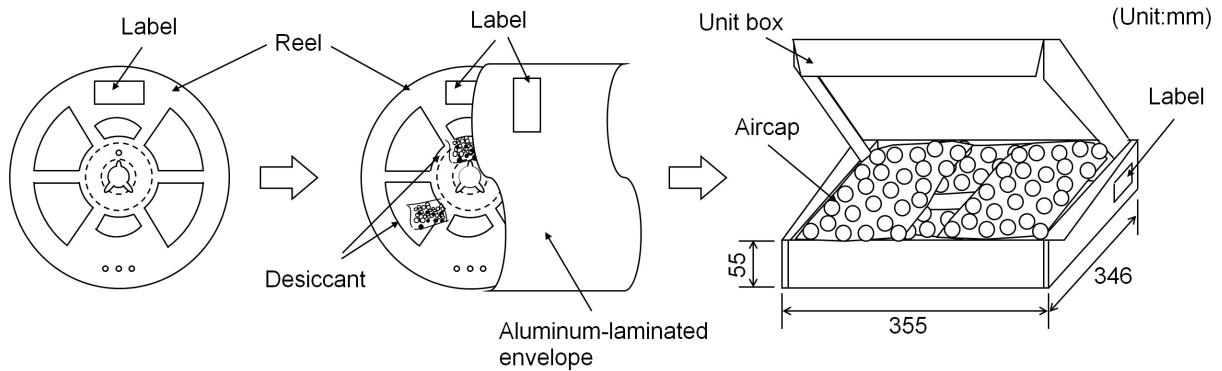


(unit:mm)

| | 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 | 17.5 | ±1.0 |
| W2 | 21.5 | ±1.0 |

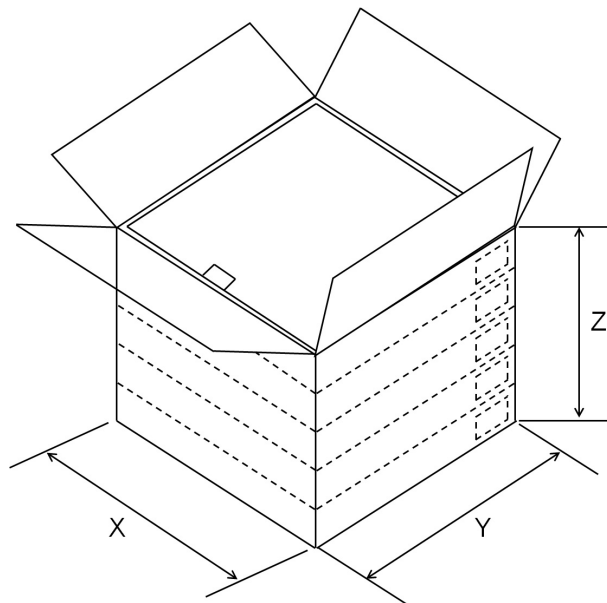
3.8 Packing Method

1 reel(s) or less per unit box



3.9 Packing Style

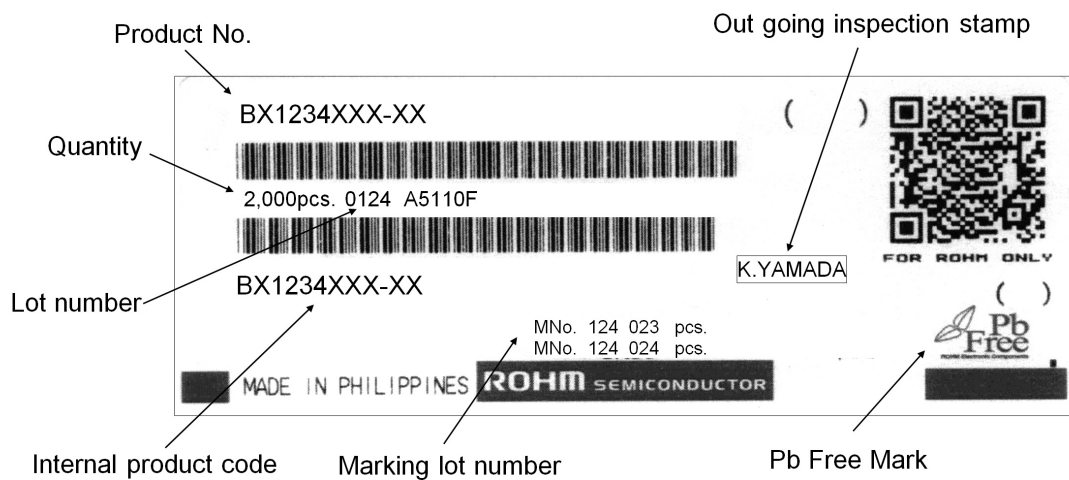
5 unit boxes or less per shipping box



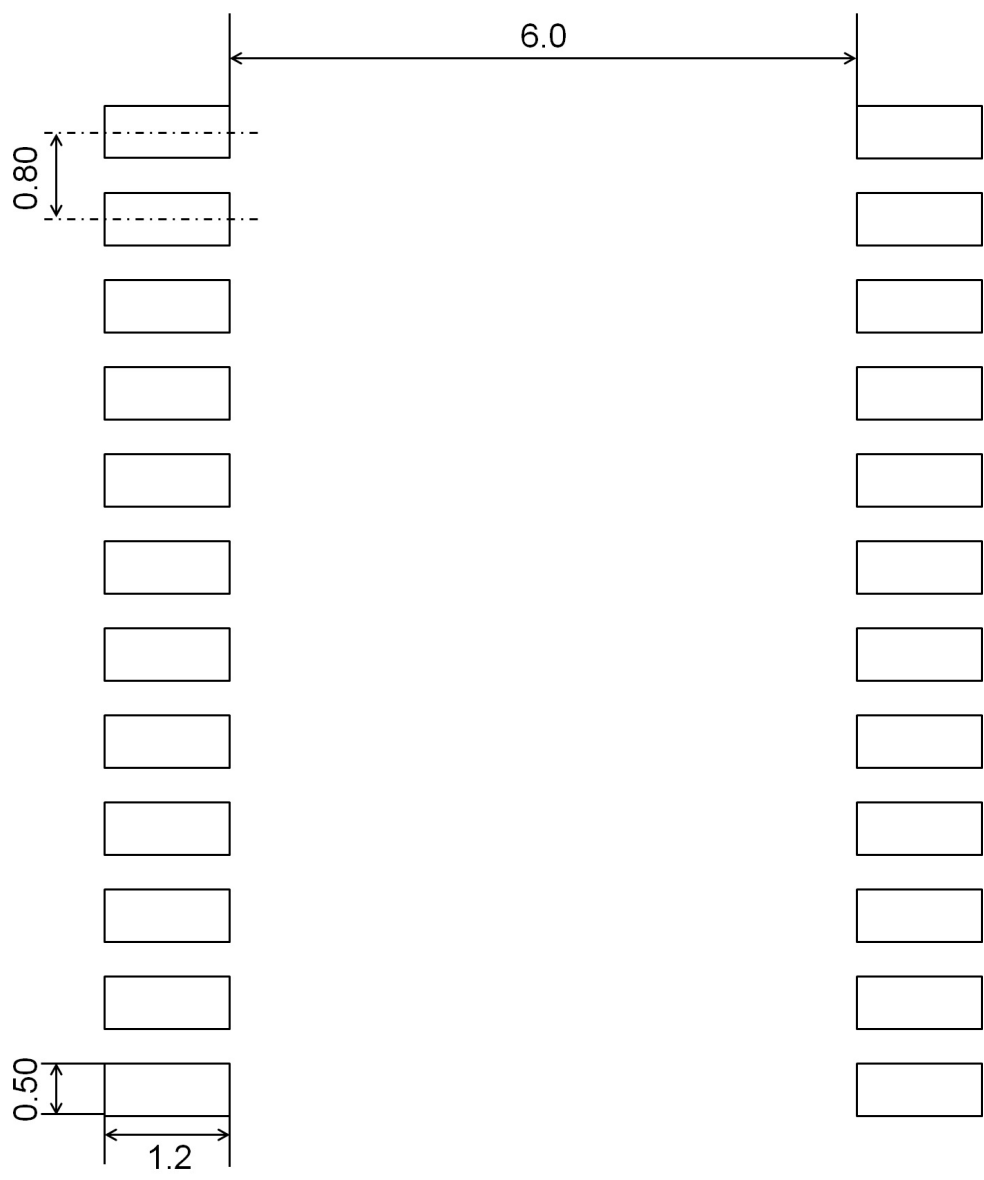
(unit:mm)

| Shipping Box Dimension | |
|------------------------|-----|
| X | 372 |
| Y | 368 |
| Z | 305 |

3.10 Label Specification



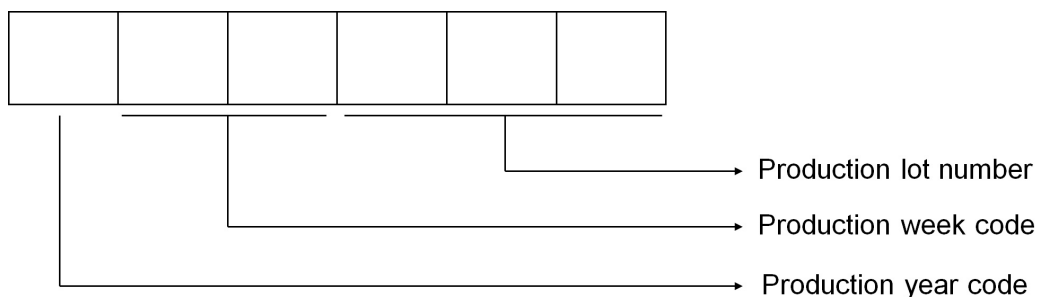
4. Footprint dimensions



(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 |

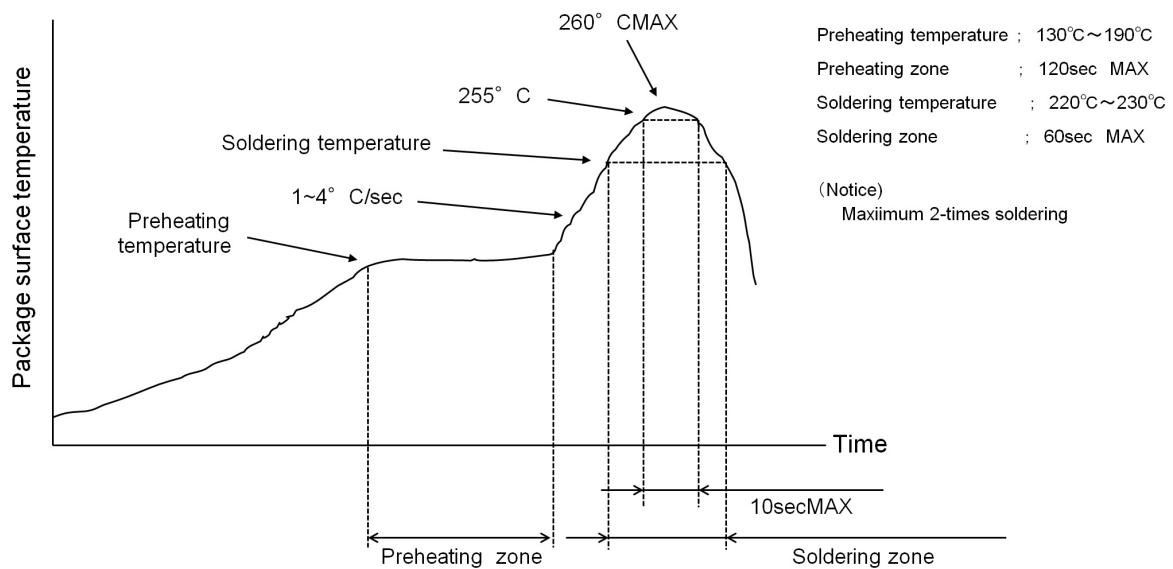
6.3 Specified storage period until soldering

We don't decide a storage period until soldering.

But we recommend if packing is opened, the package are kept with desiccant.

7. Soldering conditions

7.1 Recommended temperature profile for reflow



7.2 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.

7.3 Recommended condition for solder iron

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

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