

## 1. Package Information

|                    |          |
|--------------------|----------|
| Package Name       | SOP-J14  |
| Type               | SOP      |
| Pin Count          | 14       |
| Package Weight [g] | 0.12     |
| Lead Finish        | Pure Tin |
| MSL                | Level1   |

## 2. Package Structure



3. Packing Specification

3.1 Packing form, Quantity, PIN1 Orientation

|                   |       |           |
|-------------------|-------|-----------|
| Packing Form      |       | Tape&Reel |
| Packing Quantity  | [pcs] | 2,500     |
| 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.

Fig.1 PIN 1 Orientation in Tape

3.2 Use material

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

3.3 Leader specification

No component pockets are 320 mm or more.

3.4 Trailer specification

No component pockets are 80 mm or more. Tape is free from reel.

3.5 Peelback strength

Cover tape peelback strength is 0.2 N to 0.7 N.



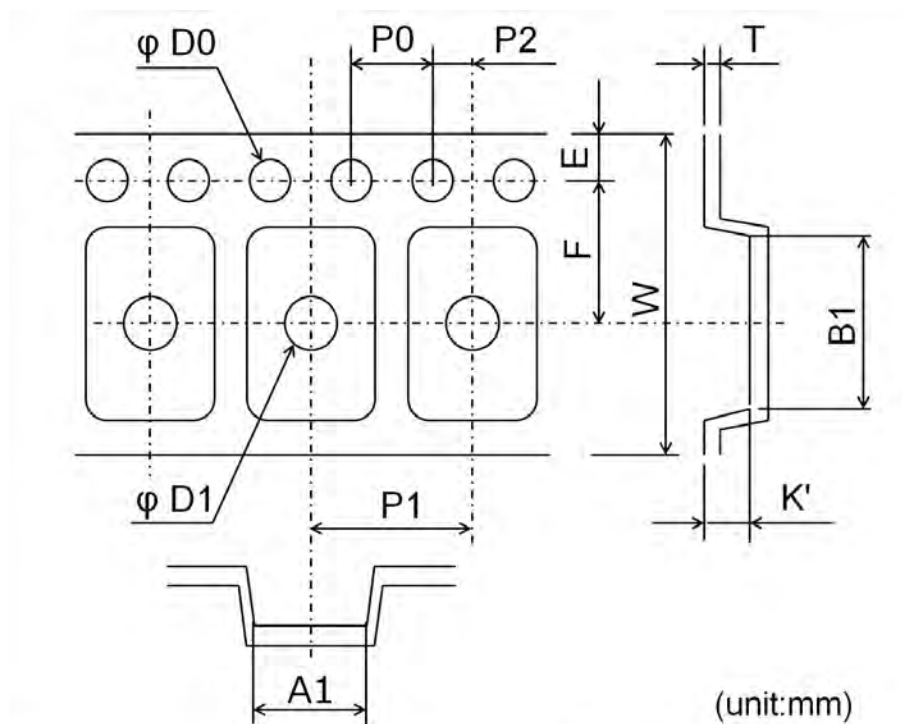
Fig. 2 Test method

3.6 Missing lcs

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

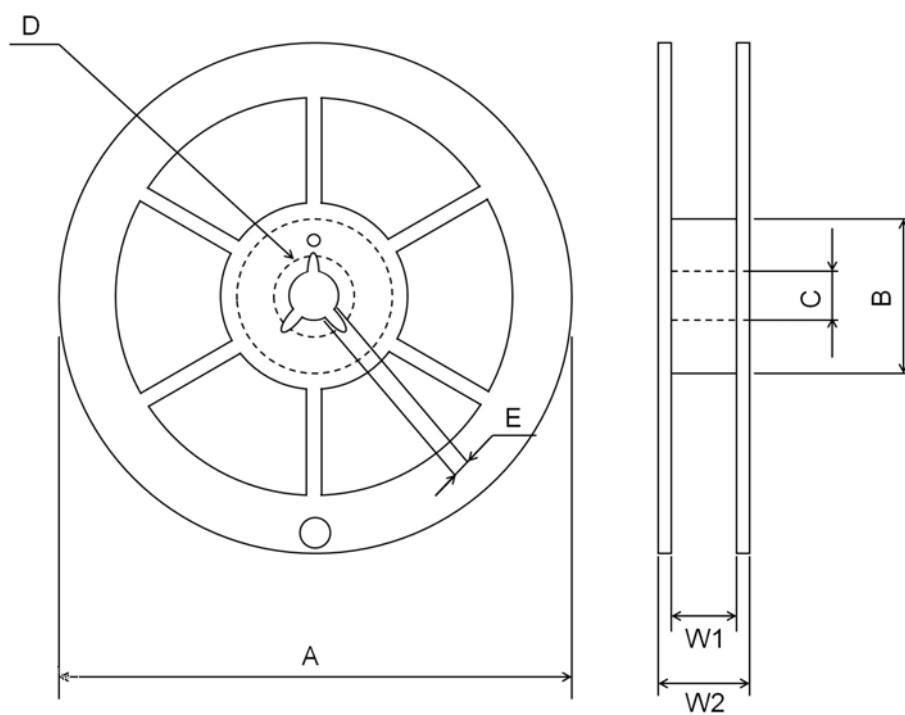
## 3.7 Tape and Reel Specification

## 3.7.1 Tape Dimension



|    | Tape Dimension | Tape Tolerance |
|----|----------------|----------------|
| A1 | 6.55           | ±0.1           |
| B1 | 9.15           | ±0.1           |
| D0 | φ1.5           | +0.1/-0        |
| D1 | φ1.5           | MIN            |
| E  | 1.75           | ±0.1           |
| F  | 7.50           | ±0.1           |
| K' | 1.80           | ±0.1           |
| P0 | 4.00           | ±0.1           |
| P1 | 8.00           | ±0.1           |
| P2 | 2.00           | ±0.1           |
| T  | 0.30           | -              |
| W  | 16.0           | ±0.3           |

## 3.7.2 Reel Dimension

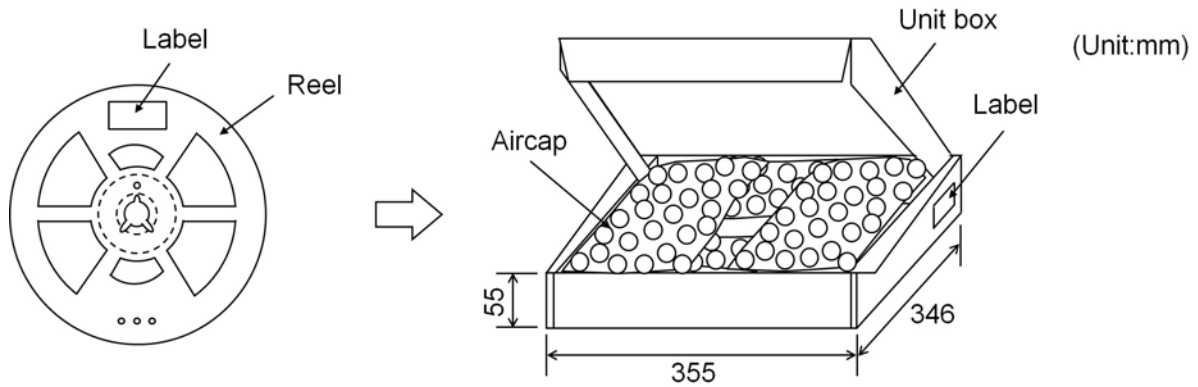


(unit:mm)

|    | 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



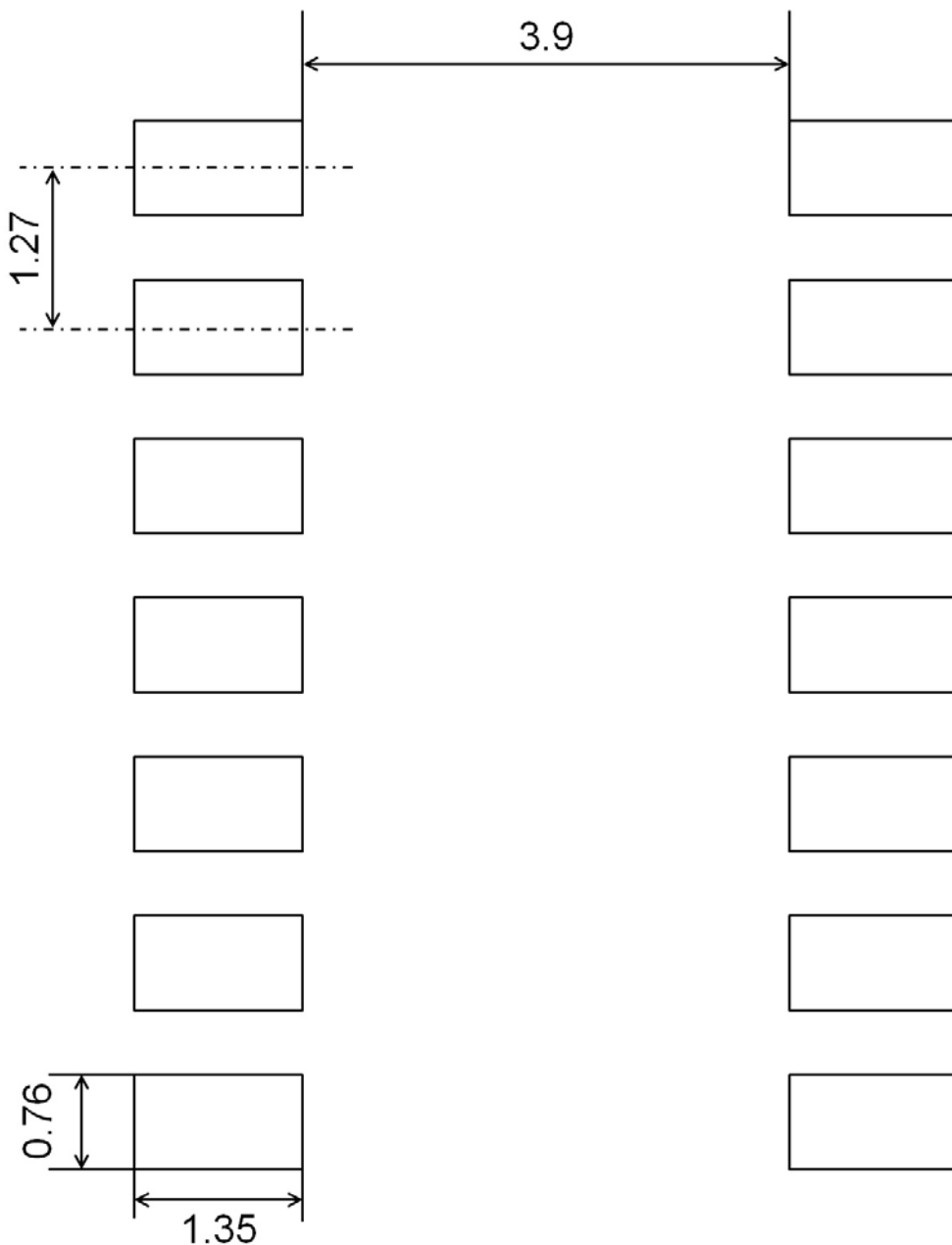
(unit:mm)

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

3.10 Label Specification



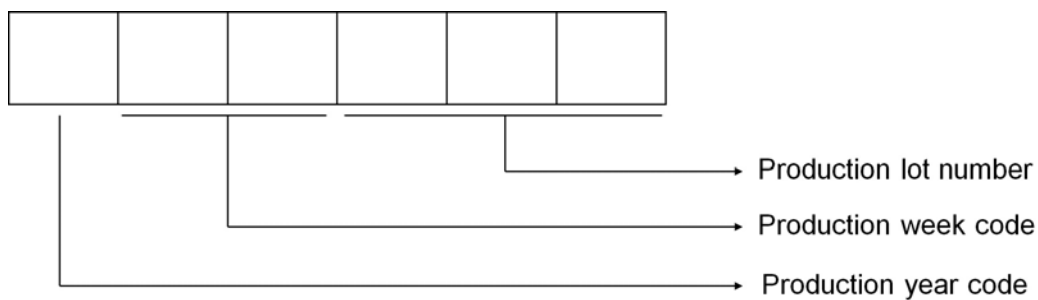
4. Footprint dimensions



(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    | -    | 85   | % RH |

## 6.2 Storage period (Start to count since delivery date)

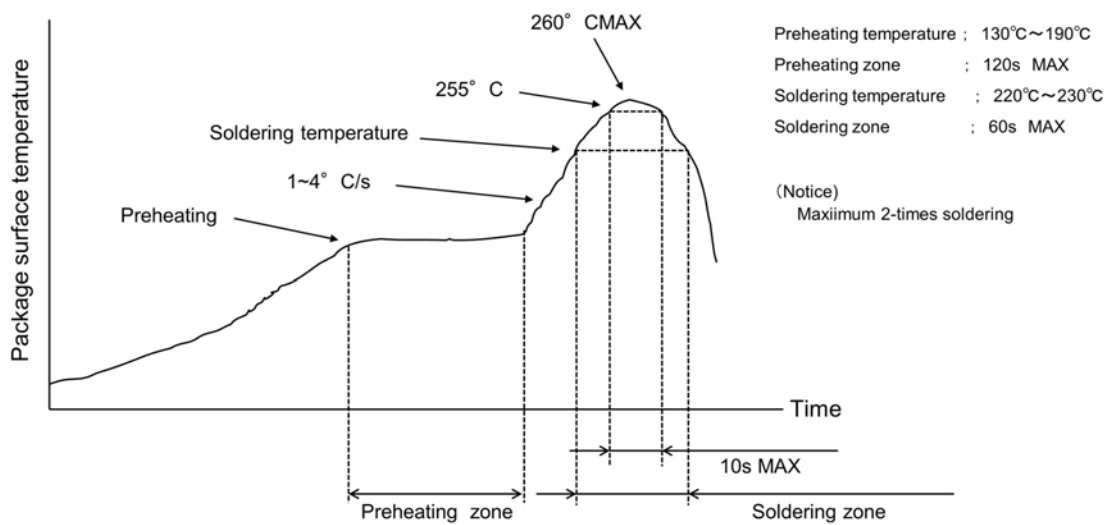
|                | Min. | Max. | Unit |
|----------------|------|------|------|
| Storage period | -    | 1    | year |

## 6.3 Drying process

Dryprocess is not required before solder mounting.

## 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 s MAX         |
| Soldering temperature  | : | 260 °C ± 3 °C    |
| Soldering time         | : | 12 s 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 s or less    |

## Notes for solder iron

- (1) Solder mounting time is the time per 1 lead



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