

Package : VCSP35L1

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1. Structure and materials

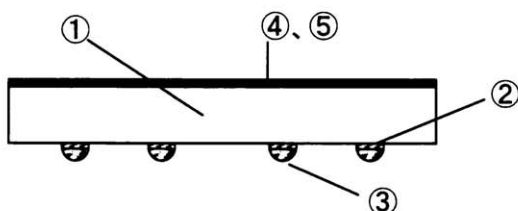


Fig. 1 Structure

| No. | Item | Materials |
|-----|---------------|-----------------------|
| ① | Die | Silicon |
| ② | Cu Post | Cu |
| ③ | Ext. terminal | Sn-3Ag-0.5Cu Solder |
| ④ | Mold Compound | Polyamide-imide Resin |
| ⑤ | Marking | Laser Marking |

Dehydrated weight : 0.002g

2. Tape and Reel information

2. 1. Packing specification

| | |
|-------------------|--|
| Tape | Embossed carrier tape (heat sealing method) |
| Quantity | 3,000pcs/Reel |
| Direction of feed | E2 (See Fig. 2) |

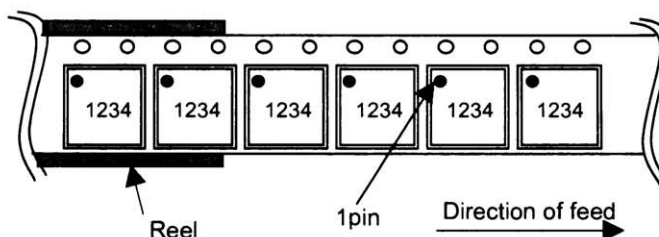


Fig. 2 Typical Tape and Reel configuration

2. 2. Tape and Reel specification

2. 2. 1. Tape and reel dimensions (See the table on page 2/4)

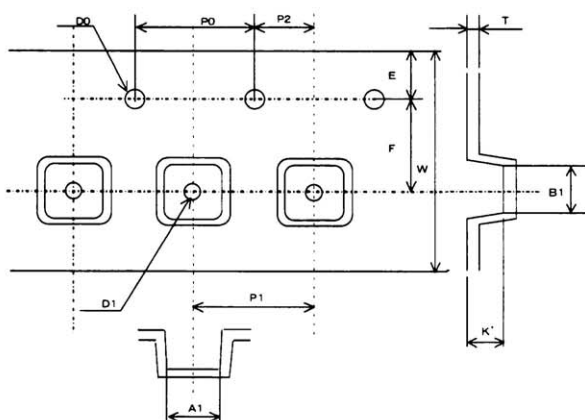


Fig. 3 Tape dimensions

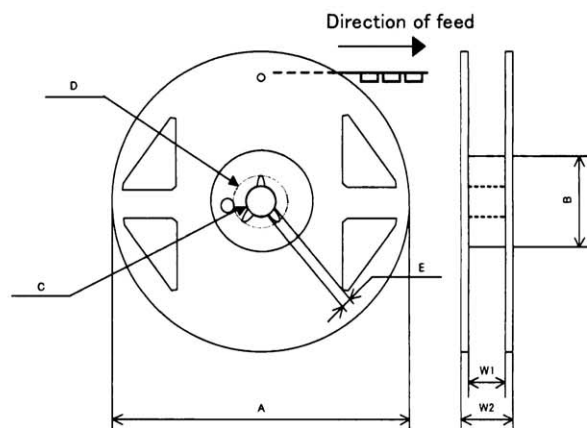


Fig. 4 Reel dimensions

(Tape dimensions)

| A1 | B1 | D0 | D1 | E | F | K' | P0 | P1 | P2 | T | W |
|--------------|--------------|--------------------|--------------|--------------|-------------|-------------|-------------|-------------|-------------|---------------|-------------|
| 1.85 ±0.1 | 1.85 ±0.1 | φ1.5 +0.1 -0 | φ0.5 ±0.1 | 1.75 ±0.1 | 3.5 ±0.1 | 0.5 ±0.1 | 4.0 ±0.1 | 4.0 ±0.1 | 2.0 ±0.1 | 0.25 ±0.05 | 8.0 ±0.3 |

(Reel dimensions)

| A | B | C | D | E | W1 | W2 |
|--------------------|-----------|---------------|--------------|------------|-------------------|--------------|
| φ180 +0 -1.5 | 60 MIN | φ13.0 ±0.2 | φ20.2 MIN | 1.5 MIN | 9.0 +1.0 -0 | 11.4 ±1.0 |

(Unit : mm)

2. 3. Leader and Trailer

2. 3. 1. Leader

No component pockets are 100 pockets(400mm) or more.

2. 3. 2. Trailer

No component pockets are 40 pockets(160mm) or more.

Tape is free from reel.

2. 4. Label for Reel and Box

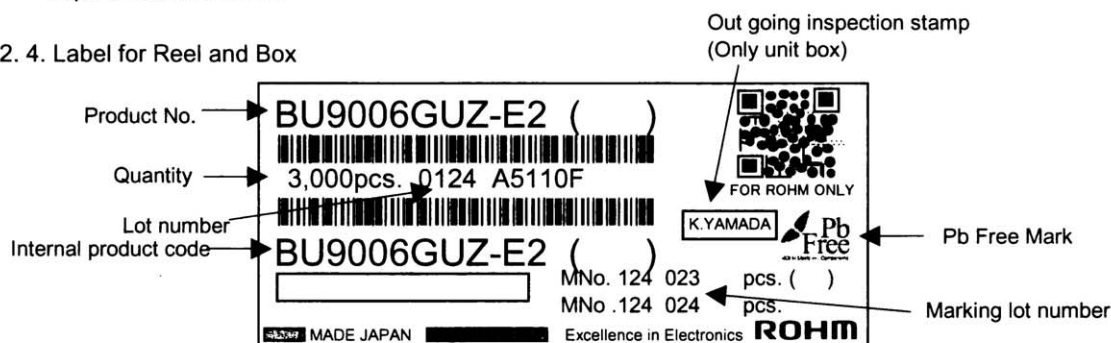


Fig. 5 Label example

2. 5. Packing style

4 reels or less per inner box.

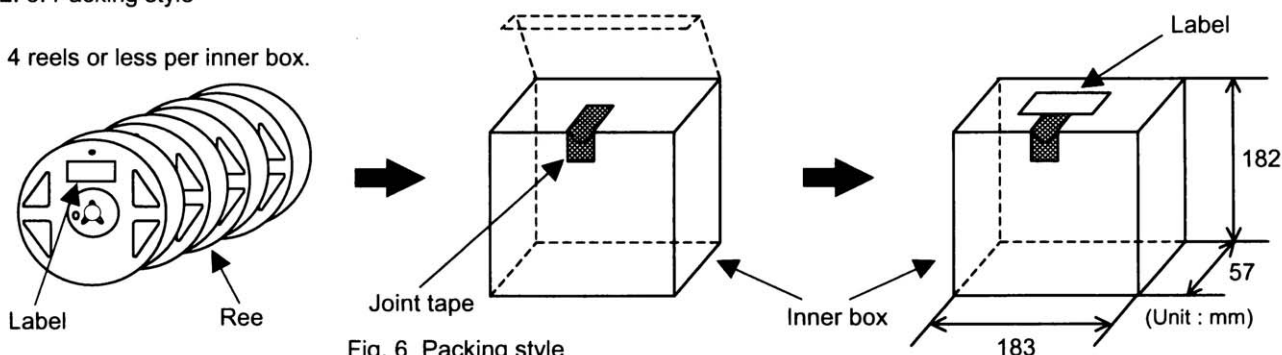


Fig. 6 Packing style

2. 6. Shipping style

4 unit boxes or less per shipping box.

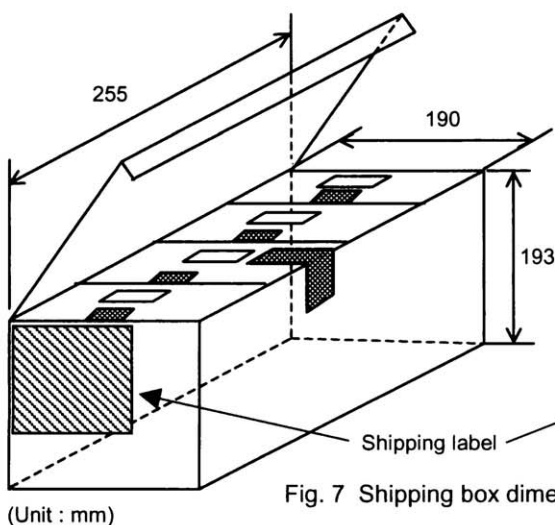
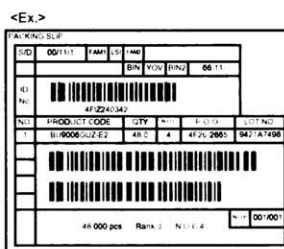


Fig. 7 Shipping box dimensions and shipping style

2.7. Packing materials

| Item | Material | Antistatic |
|-----------------------|-----------|------------|
| Embossed carrier tape | PS | Yes |
| Cover tape | PET + PE | Yes |
| Reel | PS | Yes |
| Unit box | Cardboard | None |
| Shipping box | Cardboard | None |



<Shipping label>
 1. Product code
 2. Q' TY
 3. N.O.C
 4. LOT No.

2. 8. Others

2. 8. 1. Peelback strength

Cover tape peelback strength is 0.2 to 0.7N.

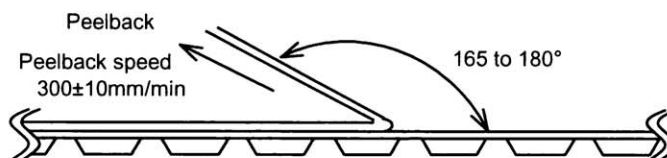


Fig. 8 Test method

2. 8. 2. Missing lcs

(1) No consecutive dropouts.

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

3. Storage conditions

3. 1. Storage environment

Recommended storage conditions are as follows :

-Temperature : 5 to 30°C

-Humidity : 40 to 70% RH

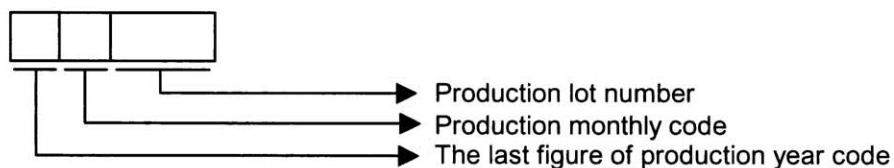
3. 2. Storage period

-Specified storage period : 1 year

3. 3. Specified storage period until soldering

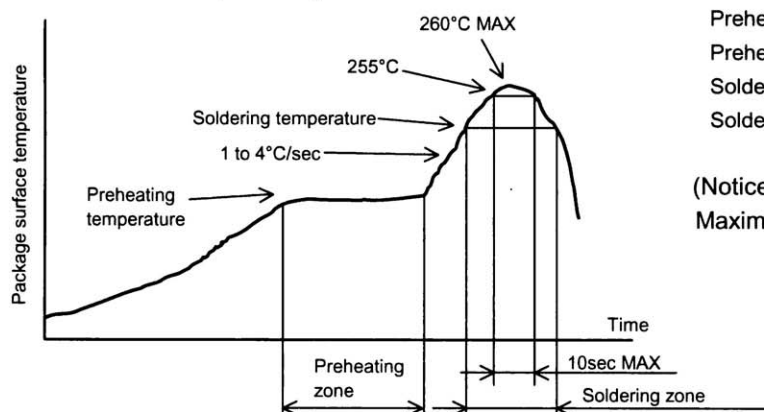
This package does not require additional drying treatment as long as the moisture condition at the mounting process is within our recommended mounting condition.

4. Marking lot number



5. Soldering conditions

5. 1. Recommended temperature profile for reflow



Preheating temperature ; 130°C to 190°C

Preheating zone ; 120sec MAX

Soldering temperature ; 220°C to 230°C

Soldering zone ; 60sec MAX

(Notice)

Maximum 2-times soldering

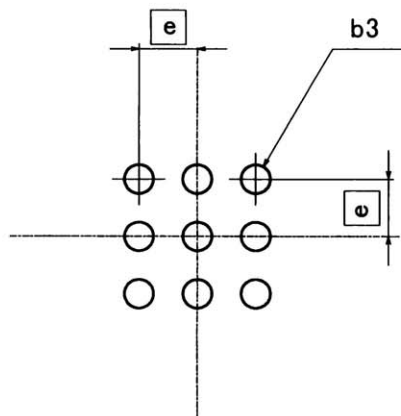
5. 2. About mounting with Sn-Pb solder paste.

Mounting with Sn-Pb solder paste is not recommended because it has a possibility of reducing reliability to connect with Sn-3.0Ag-0.5Cu solder balls.

5. 3. The wave soldering method is not supported.

5. 4. Partial heat supply method (by soldering iron) is not supported.

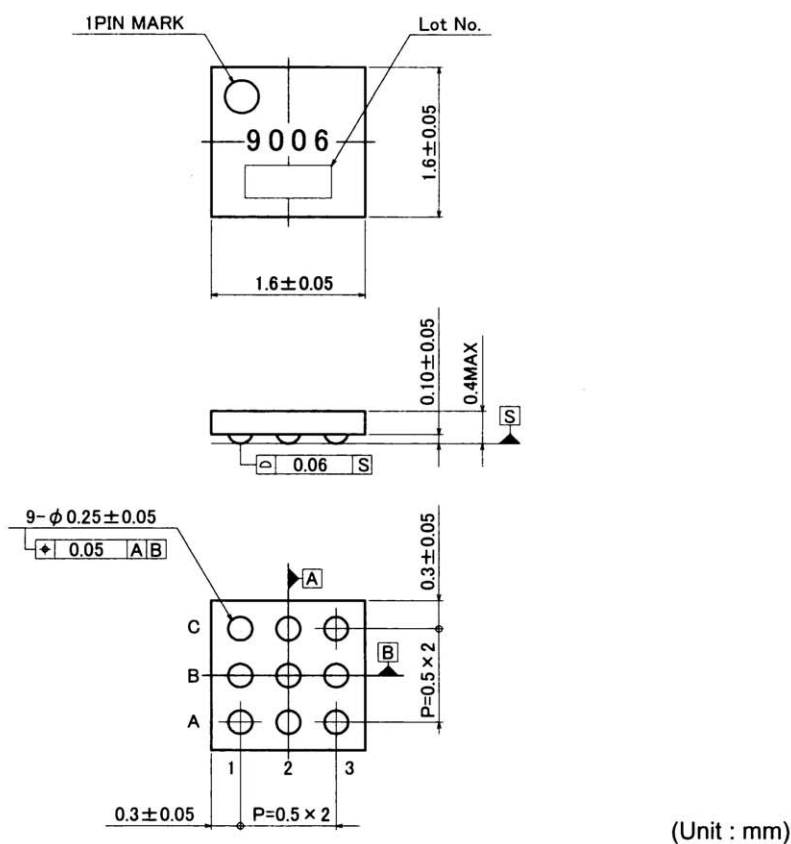
6. Footprint dimensions (Optimize footprint dimensions to the board design and soldering condition)



| Symbol | Reference Value |
|--------|-----------------|
| e | 0.50 |
| b3 | Φ0.25 |

(Unit : mm)

7. External dimensions



(Unit : mm)

8. Precautions

8. 1. Caution for handling

Silicon substrate surface is exposing to the side of this package.

Therefore, please pay careful attention to chip and crack, and handle without touching the side of package.

8. 2. Regarding the underfill material

In some case, the underfill material is applied in order to reinforce the solder junction of package.

Since there is a case that solder joint reliability may deteriorate according to the resin material or coating condition, please evaluate it sufficiently for its application. In term of the coating condition, it is preferable that there is an enough material beyond the each four sides of package.



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