

Package : VSOF5/HVSOF5/HVSOF6/HSO8

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1. Structure and materials

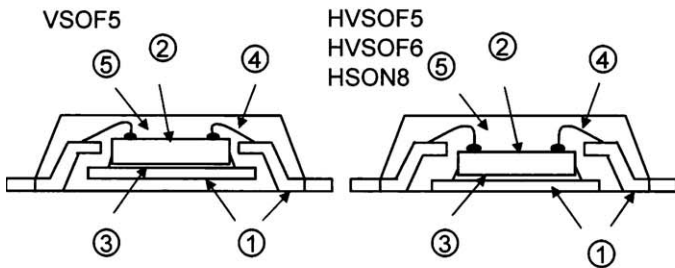


Fig. 1 Structure

| No. | Item | Materials |
|-----|------------|--|
| ① | Lead Frame | Cu-Alloy (External lead : Pb free solder plating) |
| ② | Die | Silicon |
| ③ | Die Attach | Ag Paste |
| ④ | Wire | Au |
| ⑤ | Molding | Epoxy Resin |

2. Tape and Reel information

2. 1. Packing specification

| | |
|-------------------|---------------------------|
| Tape | Embossed carrier tape |
| Quantity | See the table on page 4/4 |
| Direction of feed | TR (See Fig. 2) |

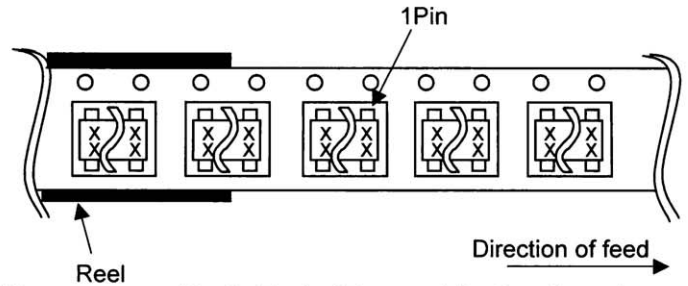


Fig. 2 Typical Tape and Reel configuration

2. 2. Tape and Reel specification

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

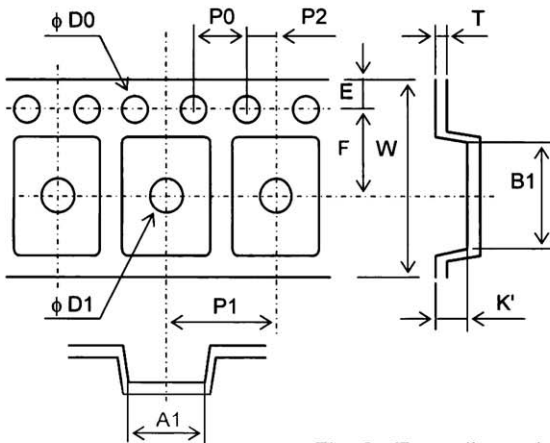


Fig. 3 Tape dimensions

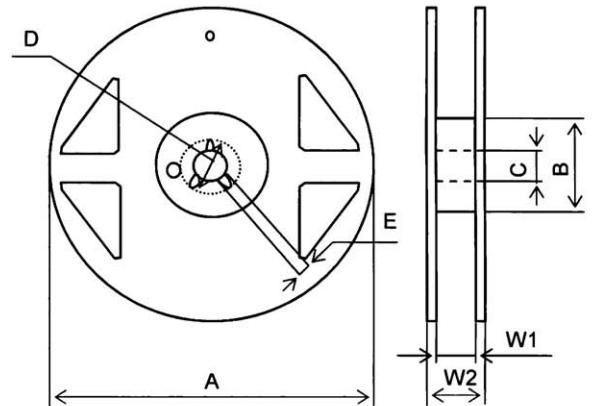


Fig. 4 Reel dimensions

2. 3. Leader and Trailer

2. 3. 1. Leader

No component pockets are 40 pockets or more.

2. 3. 2. Trailer

No component pockets are 10 pockets or more.

Tape is free from reel.

2. 4. Label for Reel and Box

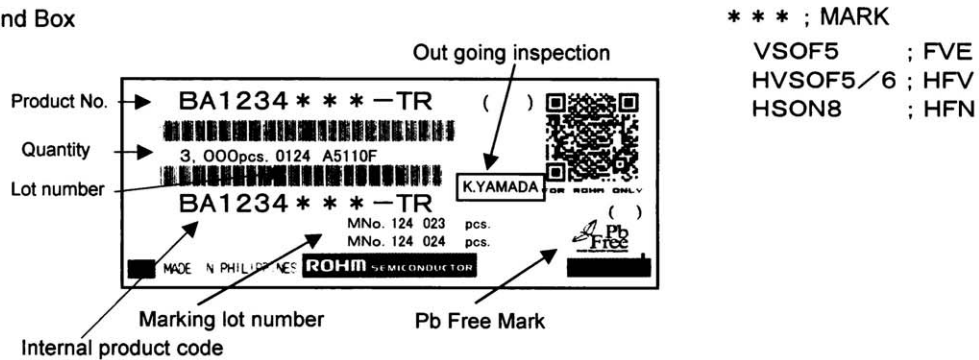


Fig. 5 Label example

2. 5. Packing style

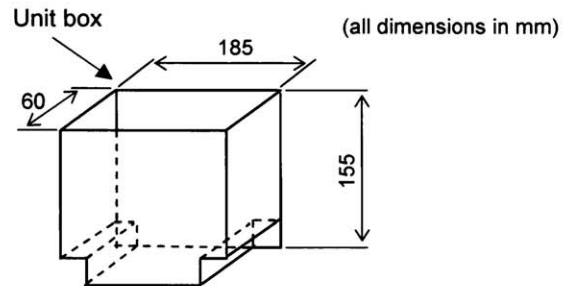
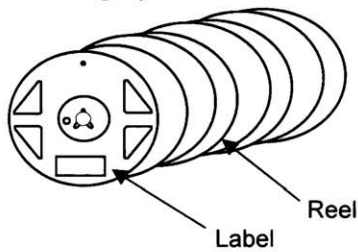
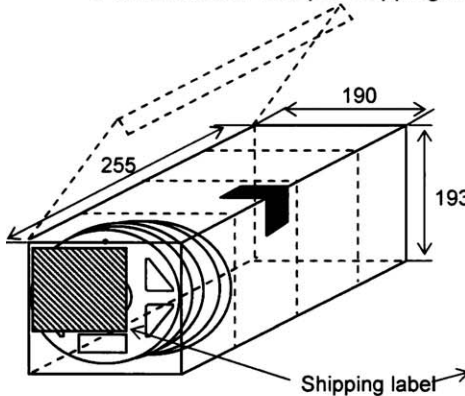


Fig. 6 Packing style

2. 6. Shipping style

5 unit boxes or less per shipping box



| PACKING SLIP | | | | | |
|--------------|---------------------------|--------|-------|-----------|------------|
| SHIP | 07/31 | FAM | LS | FAM | |
| DEST | | BN1 | YOM | BNC | DS-11 |
| I.D. No. | 4F22A0542 | | | | |
| No. | PRODUCT CODE | QTY | N.O.C | EQ.No. | LOT.No. |
| 1 | BA1234F | 48,000 | 4 | 4F28-2885 | 8421A7488F |
| 1 | | | | | |
| N | 48,000 pcs Rank 3 N O C 4 | | | | |
| O | N.O.B 001601 | | | | |
| T | | | | | |

2. 7. Packing materials

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

(all dimensions in mm)

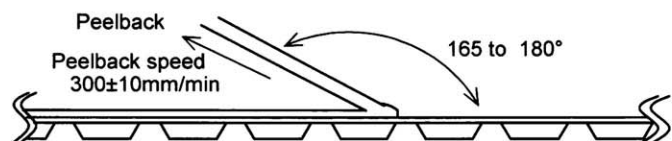
Fig. 7 Shipping box dimensions and Shipping style

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 Ics

- (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 :

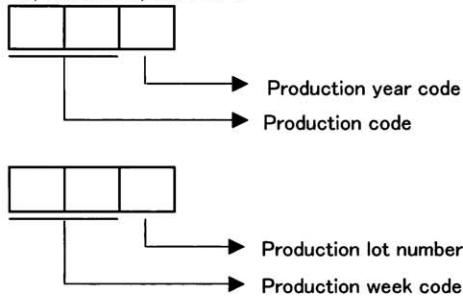
- Temperature : 5 to 30°C
- Humidity : 40 to 70% RH

3. 2. Storage period

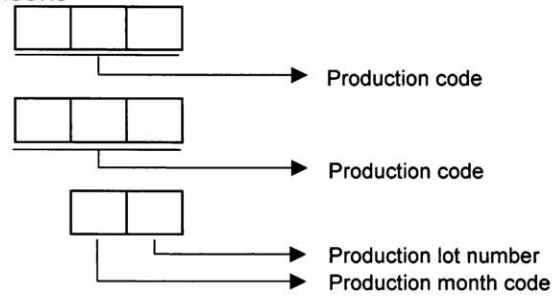
-Specified storage period : 1 year

4. Marking lot number

VSO5, HVSO5, HVSO6

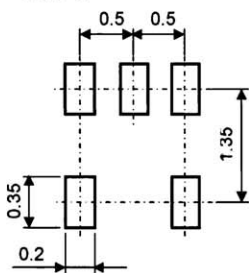


HSON8

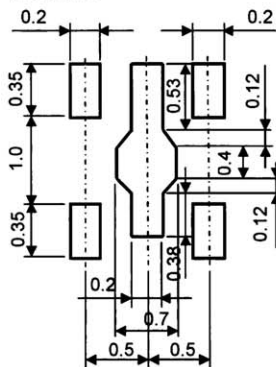


5. Footprint dimensions (Optimize footprint dimensions to the board design and soldering condition)

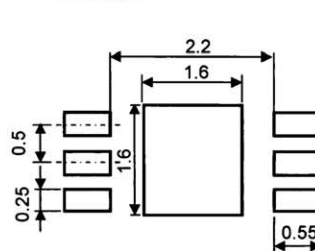
VSO5



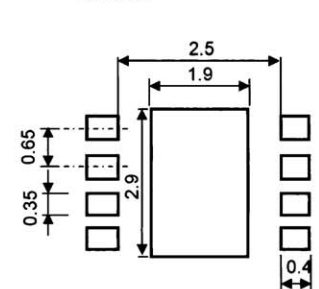
HVSO5



HVSO6



HSON8



(all dimensions in mm)

•The lead toe and lead side fillet may not be achieved because of non-lead packages.

6. Soldering conditions

6. 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

6. 2. The wave soldering method is not supported.

< Tape dimensions >

| Package | Quantity (pcs) | Tape dimensions (all dimensions in mm) | | | | | | | | | | | |
|-----------|----------------|--|------|--|-------|------|-------|------|------|------|-------|------|------|
| | | A1 | B1 | D0 | D1 | E | F | K' | P1 | P2 | T | W | P0 |
| VSO5 | 3000 | 1.83 | 1.83 | φ1.5 | φ0.5 | 1.75 | 3.5 | 0.75 | 4.0 | 2.0 | 0.25 | 8.0 | 4.0 |
| HVSO5 | 3000 | 1.83 | 1.83 | φ1.5 | φ0.5 | 1.75 | 3.5 | 0.75 | 4.0 | 2.0 | 0.25 | 8.0 | 4.0 |
| HVSO6 | 3000 | 2.0 | 3.4 | φ1.5 | φ0.8 | 1.75 | 3.5 | 0.85 | 4.0 | 2.0 | 0.3 | 8.0 | 4.0 |
| HSON8 | 3000 | 3.25 | 3.35 | φ1.5 | φ1.05 | 1.75 | 3.5 | 0.75 | 4.0 | 2.0 | 0.25 | 8.0 | 4.0 |
| Tolerance | | ±0.1 | ±0.1 | $\begin{matrix} +0.1 \\ -0 \end{matrix}$ | ±0.1 | ±0.1 | ±0.05 | ±0.1 | ±0.1 | ±0.1 | ±0.05 | ±0.3 | ±0.1 |

< Reel dimensions >

| Package | Reel dimensions (all dimensions in mm) | | | | | | |
|-----------|--|------|-------|-------|-----|------|------|
| | A | B | C | D | E | W1 | W2 |
| VSO5 | φ180 | φ60 | φ13.0 | φ20.2 | 1.5 | 10.0 | 16.0 |
| HVSO5 | φ180 | φ50 | φ13.0 | φ20.2 | 1.5 | 10.0 | 16.0 |
| HVSO6 | φ180 | φ50 | φ13.0 | φ20.2 | 1.5 | 10.0 | 16.0 |
| HSON8 | φ180 | φ50 | φ13.0 | φ20.2 | 1.5 | 10.0 | 16.0 |
| Tolerance | MAX | ±2.0 | ±0.5 | MIN | MIN | ±1.0 | MAX |

< Dehydrated weight >

| Dehydrated weight dimensions in mg |
|------------------------------------|
| 3.0 |
| 3.0 |
| 7.7 |
| 15.0 |

Notes

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