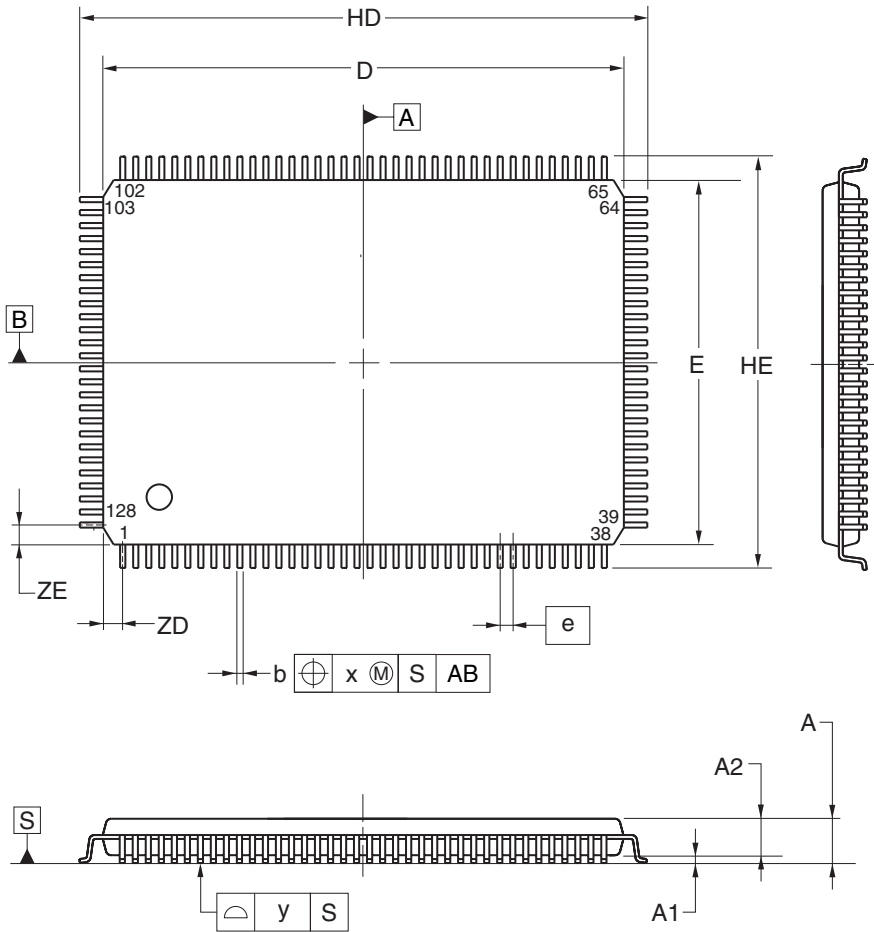
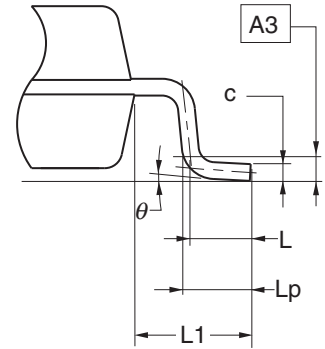


|                       |              |                 |                 |
|-----------------------|--------------|-----------------|-----------------|
| JEITA Package Code    | RENESAS Code | Previous Code   | MASS (TYP.) [g] |
| P-LFQFP128-14x20-0.50 | PLQP0128KD-A | P128GF-50-GBP-1 | 0.92            |



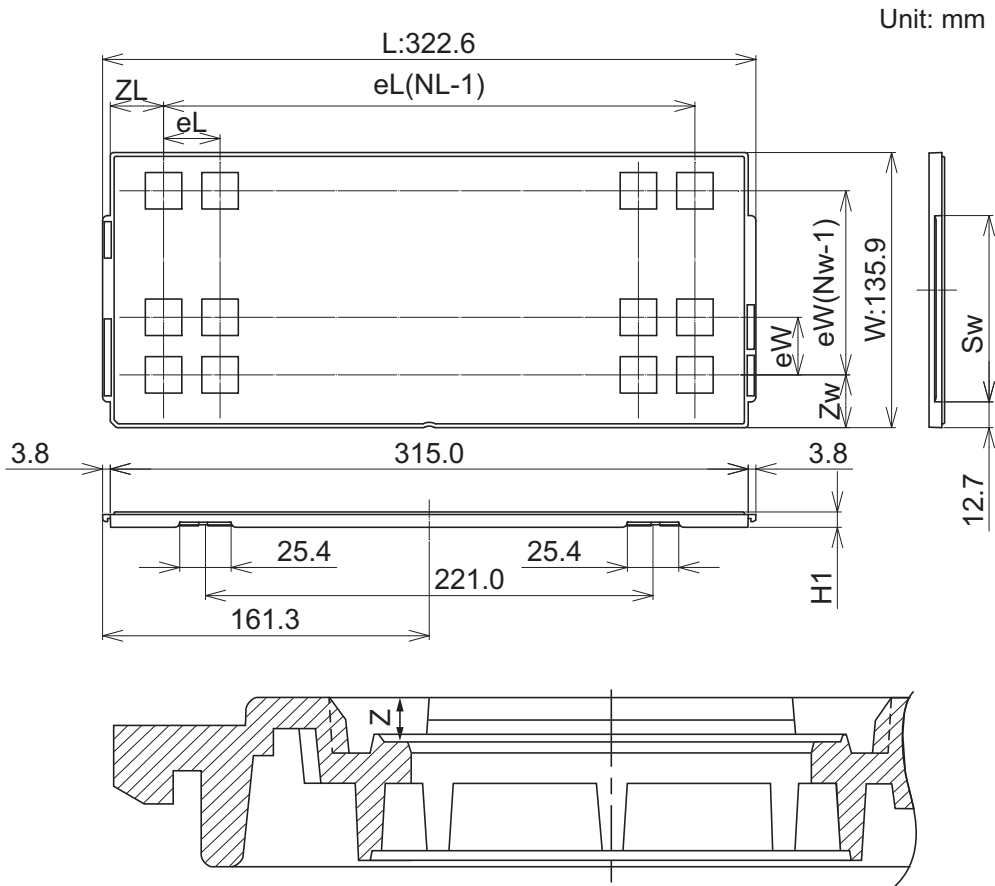
detail of lead end



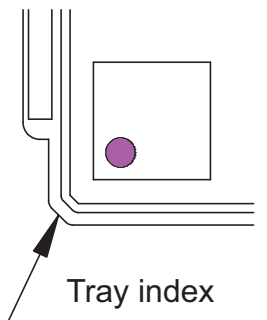
(UNIT:mm)

| ITEM | DIMENSIONS                                |
|------|---|
| D    | 20.00±0.20                                |
| E    | 14.00±0.20                                |
| HD   | 22.00±0.20                                |
| HE   | 16.00±0.20                                |
| A    | 1.60 MAX.                                 |
| A1   | 0.10±0.05                                 |
| A2   | 1.40±0.05                                 |
| A3   | 0.25                                      |
| b    | 0.22±0.05                                 |
| c    | 0.145 <sup>+0.055</sup> <sub>-0.045</sub> |
| L    | 0.50                                      |
| Lp   | 0.60±0.15                                 |
| L1   | 1.00±0.20                                 |
| θ    | 3°+5°<br>-3°                              |
| e    | 0.50                                      |
| x    | 0.08                                      |
| y    | 0.08                                      |
| ZD   | 0.75                                      |
| ZE   | 0.75                                      |

**Packing Specification  
Tray Outline Drawing  
ST-TQ142014TJ-1**



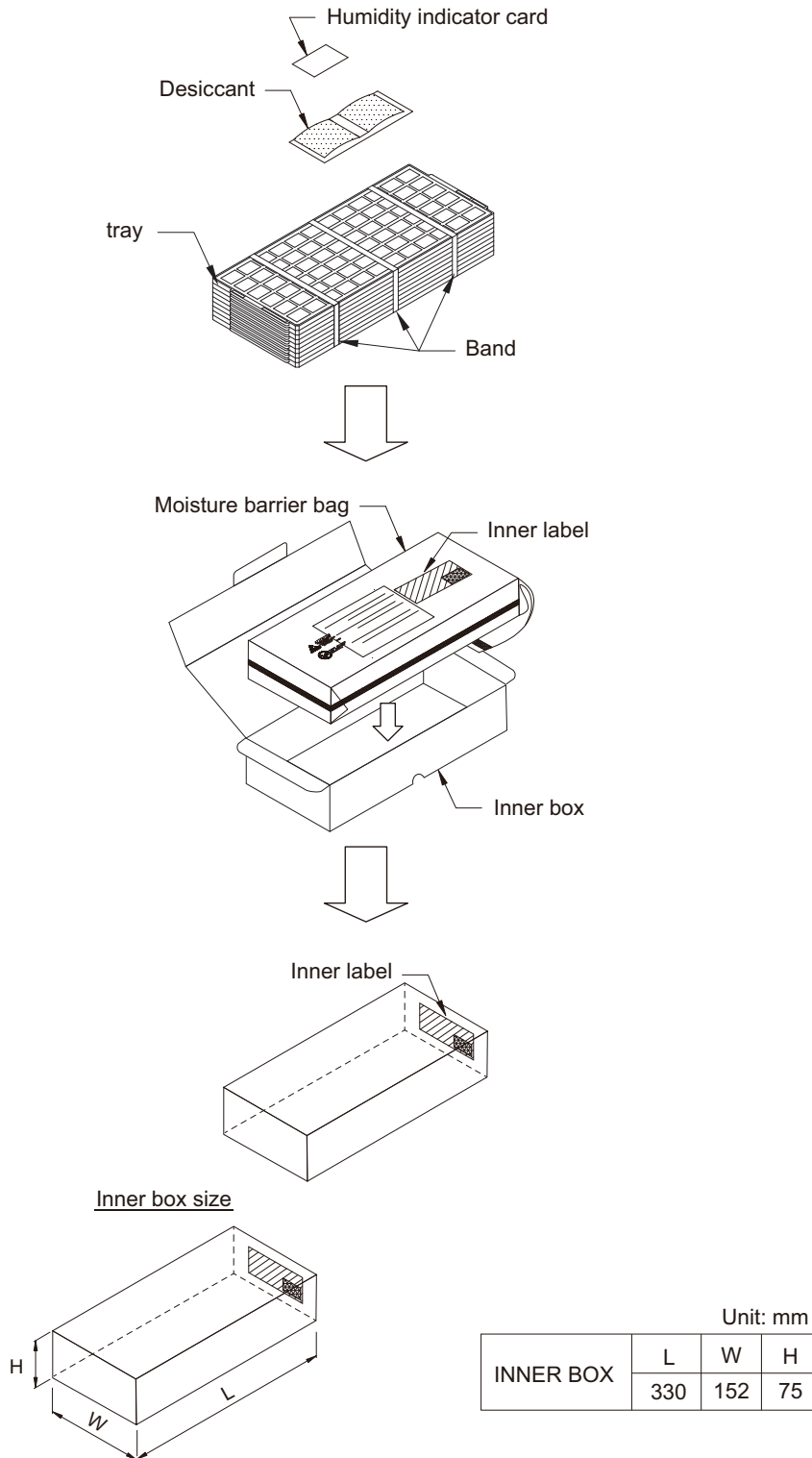
The pin1 is located in the hatching portion.



| Tray Code                        |    | ST-TQ142014TJ-1                             |
|----------------------------------|----|---|
| Position dimension of cells      | Z  | 2.0   |
|                                  | Zw | 15.45                                       |
|                                  | ZL | 17.8  |
|                                  | eW | 21.0  |
|                                  | eL | 25.4  |
|                                  | Sw | 92.1  |
| Thickness (mm)                   | H1 | 7.62  |
| Number of cells                  | Nw | 6   |
|                                  | NL | 12  |
| Maximum storage No. IC/Tray      |    | 72  |
| Maximum storage No. IC/Inner box |    | 576   |
| Material                         |    | Carbon PPE                                  |
| Heat resistant temperature       |    | 150°C MAX                                   |
| JEDEC or Custom                  |    | JEDEC                                       |
| Surface resistance               |    | Less than $1 \times 10^{11} \Omega/\square$ |

RDH-H-000664

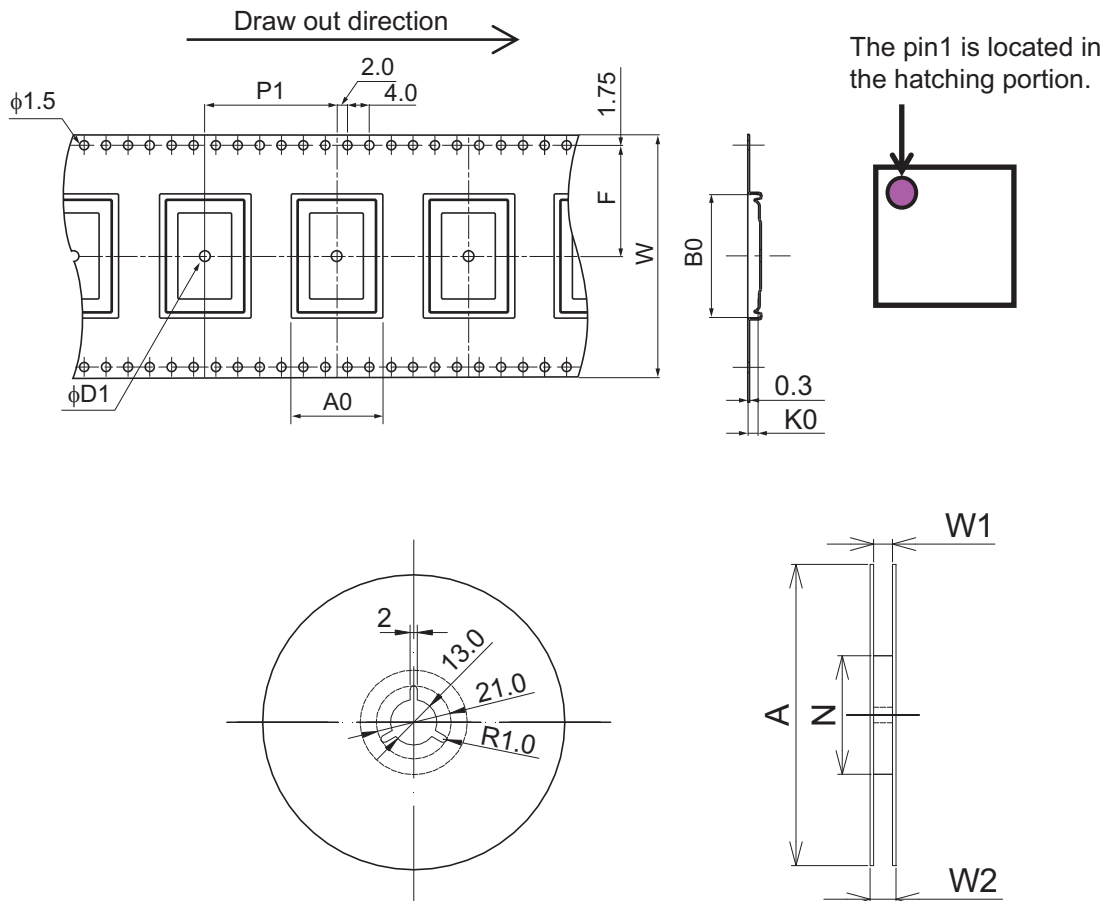
**Packing Specification**  
**Tray Packing**  
**(Tray dry pack)**



H-000531

**Packing Specification  
Tape & Reel Outline Drawing  
E44 \* 24-AWCA**

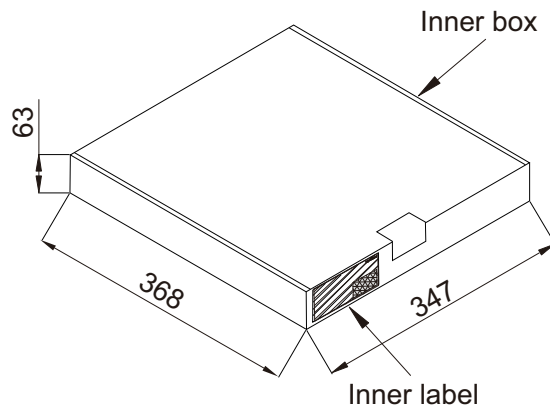
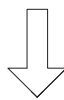
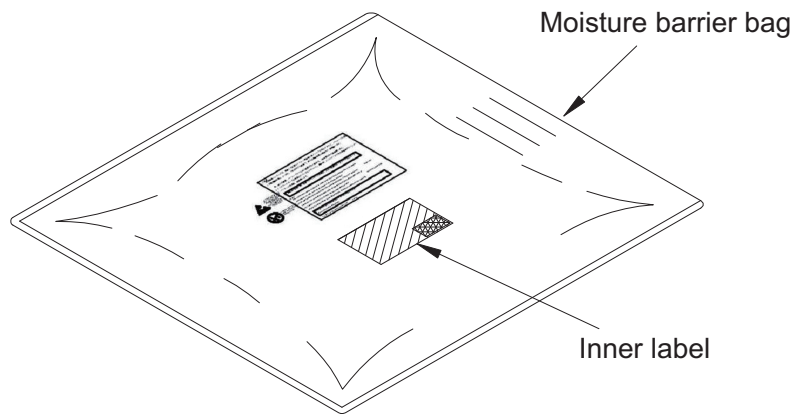
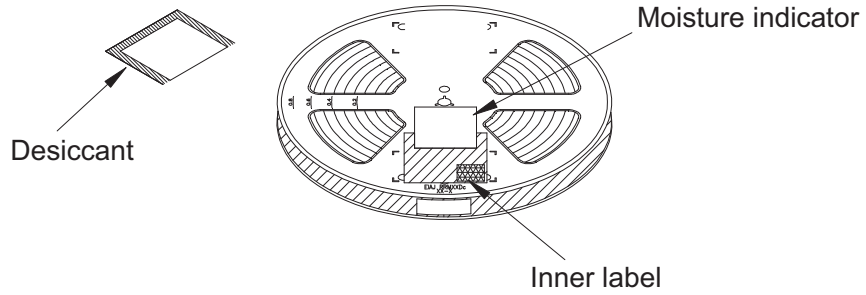
Unit: mm



| Tape Code                    |    | E44 * 24-AWCA                               |
|------------------------------|----|---|
| Tape Dimensions (mm)         | W  | 44.0  |
|                              | P1 | 24.0  |
|                              | A0 | 16.45                                       |
|                              | B0 | 22.45                                       |
|                              | K0 | 1.4   |
|                              | F  | 20.2  |
|                              | D1 | 2.0   |
| Reel Dimensions (mm)         | A  | 330   |
|                              | N  | 100   |
|                              | W1 | 45.5  |
|                              | W2 | 49.5  |
| Maximum storage No. IC/ Reel |    | 750   |
| Material                     |    | Carbon PS                                   |
| Surface resistance           |    | Less than $1 \times 10^{11} \Omega/\square$ |

RDK-H-001649

**Packing Specification**  
**Tape & Reel Packing**  
**(Tape dry pack)**



RDK-H-000671

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