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Renesas Electronics website: http://www.renesas.com

April 1st, 2010
Renesas Electronics Corporation

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User's Manual

HKT100***FT###

Precautions and Notes in Connection with Mounting Taping-Type μ-Chip Inlet

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Rev.1.00 2006.02

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Contents

Note: "***" is a ROM code.

"###" is a specification code.

Note: "µ-Chip" and the µ-Chip Logo are either registered Trademarks or Trademarks of Hitachi,Ltd. in Japan and in other countries.

Section 1 Structure of Taping-Type µ-Chip Inlets

The µ-Chips with COA-type inlets [Note], which consist of an antenna and a chip, are aligned and mounted on adhesive paper tape, as shown in Figure 1 below.

Note: Please refer to the data sheet of individual product. (Document No.: REJ03P0004-0100 etc.)

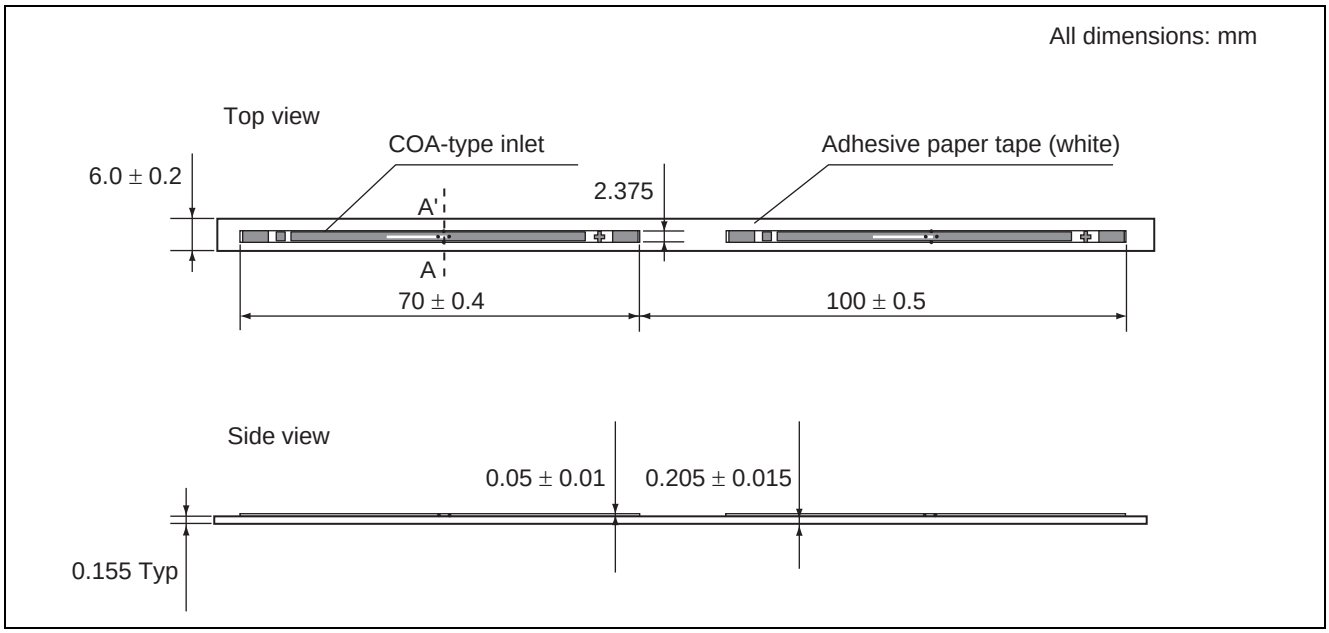
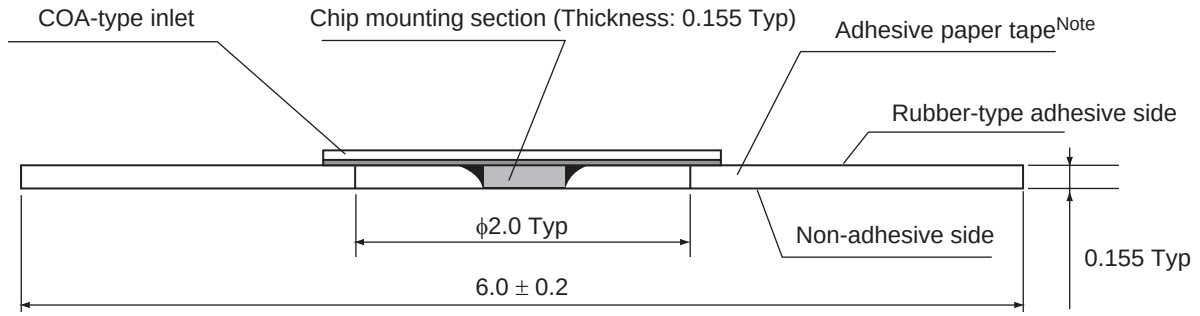


Figure 1 Structure of Taping-Type Inlet (Example of HKT100*FT001)**

Details of A-A' cross section

All dimensions: mm



Note: Properties per unit of adhesive paper tape
(The following numbers are measured, not guaranteed values.)
Adhesibility: 5.0 N/10 mm or more
Tensile strength: 40 N/10 mm or more
Elongation: 10% or less

Figure 2 Cross Section and Structure of Taping-Type Inlets (Example of HKT100*FT001)**

Section 2 Measures Against Communication Errors Caused by Mechanical Stress or Attached Material

1. Deformation and disconnection of antenna

   Since the RFID antenna module is thin, wires may be twisted or distorted when the label is attached.

   This may lead to connection errors, and/or curving, breaking, or distortion after the product is on the market, which may lead to disconnections. Please conduct a thorough verification in each evaluation.

2. Cracks in the chip-mounting section

   If the label is attached to the product using a label attachment device, mechanical stress may be concentrated on the chip-mounting section. This may create cracks in the resin or the chip. Therefore, please design a mounting method that avoids the use of impact stress by, for example, creating a slight depression in the part of the press or roller that comes in contact with the chip-mounting section. During evaluation, please verify that mechanical stress will not be applied to the chip-mounting section after the product goes on the market and is sold.

3. Communication errors caused by attached material

   Depending on the material that is attached to the label, an RFID communication error may occur.

   Please thoroughly verify this in your evaluation.

HKT100*FT### User's Manual**

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