

CLAIMS

1. A method for manufacturing an electronic device, the method comprising at least:

a preparing step of preparing a structure provided with an adhesive film provided with a base material layer, an adhesive resin layer (A) provided on a first surface side of the base material layer and used for temporarily fixing an electronic component, an adhesive resin layer (B) provided on a second surface side of the base material layer, and an unevenness-absorbing resin layer (C) provided between the base material layer and the adhesive resin layer (A) or between the base material layer and the adhesive resin layer (B), and which is able to be cross-linked by an external stimulus, and an electronic component attached to the adhesive resin layer (A) of the adhesive film and having an uneven structure;

a cross-linking step of cross-linking the unevenness-absorbing resin layer (C) by applying an external stimulus to the unevenness-absorbing resin layer (C) in the structure; and

a sealing step of sealing the electronic component with a sealing material;

wherein the structure is further provided with a support substrate attached to the adhesive resin layer (B), and

a first peeling step of peeling the support substrate from the structure by reducing an adhesive force of the adhesive resin layer (B) by applying an external stimulus, after the sealing step.

2. The method for manufacturing an electronic device according to claim 1, wherein the adhesive resin layer (B) is a layer for which an adhesive force is reduced by an external stimulus.

3. The method for manufacturing an electronic device according to claim 1 or 2, wherein the external stimulus is heat or light.

4. The method for manufacturing an electronic device according to any one of claims 1 to 3,

wherein the unevenness-absorbing resin layer (C) is provided at least between the base material layer and the adhesive resin layer (A).

5. The method for manufacturing an electronic device according to any one of claims 1 to 4,

wherein the uneven structure of the electronic component includes a bump electrode.

6. The method for manufacturing an electronic device according to claim 5, wherein, when a height of the bump electrode is H [μm] and a thickness of the unevenness-absorbing resin layer is d [μm], H/d is 0.01 or more and 1 or less.

7. The method for manufacturing an electronic device according to any one of claims 1 to 6,

wherein a storage elastic modulus E' of an unevenness-absorbing resin layer (C') obtained by cross-linking the unevenness-absorbing resin layer (C) at 125°C is 1.0×10^6 Pa or higher and 1.0×10^9 Pa or lower.

8. The method for manufacturing an electronic device according to any one of claims 1 to 7,

wherein the unevenness-absorbing resin layer (C) includes a cross-linkable resin.

9. The method for manufacturing an electronic device according to any one of claims 1 to 8,

wherein a thickness of the unevenness-absorbing resin layer (C) is $10\ \mu\text{m}$ or more and $1000\ \mu\text{m}$ or less.

~~10. The method for manufacturing an electronic device according to any one of claims 1 to 9,~~

~~wherein the structure is further provided with a support substrate attached to the adhesive resin layer (B).~~

~~11. The method for manufacturing an electronic device according to claim 10, further comprising:~~

~~—— a first peeling step of peeling the support substrate from the structure by reducing an adhesive force of the adhesive resin layer (B) by applying an external stimulus, after the sealing step.~~

~~1210.~~ The method for manufacturing an electronic device according to ~~claim 11~~ any one of claims 1 to 9, further comprising:

a second peeling step of peeling the adhesive film from the electronic component after the first peeling step.

~~1311.~~ The method for manufacturing an electronic device according to any one of claims 1 to ~~1210~~,
 wherein the sealing material is an epoxy resin-based sealing material.

~~1412.~~ The method for manufacturing an electronic device according to any one of claims 1 to ~~1311~~,

wherein an adhesive resin forming the adhesive resin layer (A) includes one or two or more types selected from (meth)acrylic-based adhesive resin, silicone-based adhesive resin, urethane-based adhesive resin, olefin-based adhesive resin, and styrene-based adhesive resin.

~~—— 15. A method for manufacturing an electronic device, the method comprising at least:~~

~~—— a preparing step of preparing a structure provided with an adhesive film provided with a base material layer, an adhesive resin layer (A) provided on a first surface side of the base material layer and used for temporarily fixing an electronic component, and an unevenness-absorbing resin layer (C) provided between the base material layer and the adhesive resin layer (A) and which is able to be cross-linked by an external stimulus, and an electronic component attached to the adhesive resin layer (A) of the adhesive film and having an uneven structure;~~

~~—— a cross-linking step of cross-linking the unevenness-absorbing resin layer (C) by applying an external stimulus to the unevenness-absorbing resin layer (C) in the structure; and~~

~~—— a sealing step of sealing the electronic component with a sealing material.~~