

[0166] The steps described above enable the manufacture of a semiconductor device equipped with the layer to be peeled **833** which serves as a support for the second adhesive **836** and the third substrate **837**. Then, by curving the device as shown in **FIG. 8G**, it thus becomes possible to achieve a semiconductor device in which the curved surface of the semiconductor device exhibits a radius of curvature of from 50 cm to 200 cm. When curving the device, it can be attached to the curved surface to which it is going to be mounted. Note that, between the second adhesive **836** and the layer to be peeled **833**, there is the oxide layer **832** that is the second material layer. In the semiconductor device obtained as described above, the second material layer **832** is applied by a sputtering method and minute amounts of inert gas elements are included in the second material layer **832**. Therefore, the semiconductor device as a whole can be made flexible.

[0167] Further, in accordance with the present embodiment, the device was curved after being attached to the third substrate. However, it is also possible to curve the device by attaching it directly to a base that has a curved surface, with the second adhesive **836**.

[0168] Here, an example was shown in which the semiconductor device is built to completion according to the steps described above, but it is also possible to follow the above-mentioned steps to complete the semiconductor device only partially. For example, according to the above-mentioned steps, it is possible to form the layer to be peeled containing a TFT circuits, and then, after obtaining the layer to be peeled which has as a support therefor the second adhesive and the third substrate, steps of forming elements may be added to complete any of a variety of semiconductor devices, such as a light emitting device or a liquid crystal display device having a light emitting elements in which a layer containing an organic compound serves as a light emitting layer.

[0169] Further, it is also possible to make a light emitting device having a light emitting element in which a layer containing a passive organic element compound serves as a light emitting layer.

[0170] Further, in a case where, in order to reduce the adhesion between the third substrate and the second adhesive, a plastic film in which an AlN_xO_y film is formed on the surface is formed as the third substrate **837**, it becomes possible to separate the second substrate **835** and the third substrate **837**. It thus becomes possible to manufacture a semiconductor device equipped with the layer **833** to be peeled having the second adhesive **836** as a support. Since such a semiconductor device has only the second adhesive as a support, it can be made thin, lightweight and flexible.

[0171] Further, by following the above-mentioned steps, the present inventors actually performed electrical measurement of the TFT formed onto the first substrate before peeling the first substrate, and after separating the first and the second substrate, they performed the electrical measurement of the TFT once again. There was hardly any change in the characteristics of the TFT before and after separation. **FIG. 9** is a V-I characteristic graph for an n-channel type TFT with the post-separation channel length L/channel width $W=50\ \mu\text{m}/50\ \mu\text{m}$. Further, **FIG. 10** is a V-I characteristic graph for a p-channel type TFT with the post-separation channel length L/channel width $W=50\ \mu\text{m}/50\ \mu\text{m}$.

[0172] Since there was hardly any change in the characteristics of the TFT before and after the separation, it can be said that, even when the transferring and application are performed according to the sequence described above, the above-mentioned steps do not affect the TFTs. Further, it is also possible to directly form the TFT onto the plastic substrate; however, since the substrate's heat resistance is low, it would be difficult to perform thermal processing at 300°C . or higher. Thus, it would be difficult to form the TFT with the excellent characteristics shown in **FIG. 9** and **FIG. 10**. As demonstrated in the present embodiment, after the TFT is formed onto the heat-resistant substrate, the heat-resistant substrate is then peeled. Accordingly, it thus becomes possible to form the TFT exhibiting the excellent characteristics as shown in **FIG. 9** and **FIG. 10**.

[0173] [Embodiment 4]

[0174] In this embodiment, in accordance with the technology described in Embodiment 3, manufacturing steps of a light emitting device having a light emitting element in which a layer having an organic compound serves as a light emitting layer will be described with reference to **FIG. 11**.

[0175] First, pixel portions (n-channel TFTs and p-channel TFTs) and driver circuits (n-channel TFTs and p-channel TFTs) provided in the vicinity of the pixel portions are manufactured simultaneously on one substrate, organic light emitting elements (also called organic light emitting device) are formed thereon.

[0176] A first material layer **931** made of nitride layer or a metal layer and a second material layer **932** made of an oxide layer are formed on a first substrate in accordance with Embodiment 3.

[0177] Next, a layer containing TFTs and wirings is formed on the second material layer **932** in accordance with the technology shown in Embodiment 1. After an insulation film for covering respective TFTs is formed, a cathode or an anode electrically connected with TFTs provided in the pixel portion is formed. Further, an insulator called bank is formed to cover the ends of the cathode or the anode on both ends thereof. Moreover, if necessary, it is practicable to form a passivation film (protection film) to cover TFTs optionally. And, an EL layer (organic compound material layer) and the anode or the cathode of organic light emitting elements are formed on the cathode or the anode both ends of which are covered by bank. When the under layer of the EL layer is a cathode, an anode can be provided on the EL layer, on the contrary, when the under layer of the EL layer is an anode, a cathode can be provided on the EL layer.

[0178] As the EL layer, an EL layer (layer for light emitting and making carrier perform the migrate for it) may be formed by freely combining the light emitting layer, a charge injection layer or a charge implantation layer. For example, low molecular system organic EL material and high molecular system organic EL material may be employed. Moreover, as an EL layer, a thin film out of a light emitting material (singlet compound) which light-emits (fluorescence) due to singlet excitation, or a thin film out of a light emitting material (triplet compound) which emits (phosphorescence) due to triplet excitation can be used. Moreover, an inorganic material such as silicon carbide or the like is capable of being used as a charge transport layer and a charge injection layer. For these organic EL material