ELECTRODE STRUCTURE FOR SEMICONDUCTOR DEVICE, METHOD FOR FORMING THE SAME, MOUNTED BODY INCLUDING SEMICONDUCTOR DEVICE AND SEMICONDUCTOR DEVICE

ABSTRACT OF THE DISCLOSURE

An electrode structure for a semiconductor device and a method for forming the electrode structure, and a mounted body including the semiconductor device are provided in which the semiconductor device can be easily connected to a circuit board with high reliability. An aluminum electrode (2) is formed on an IC substrate (1). A passivation film (5) is formed on the IC substrate (1) so as to cover the peripheral portion of the aluminum electrode (2). A bump electrode (3) is formed on the aluminum electrode (2) by a wire bonding method. An aluminum oxide film (4) is formed on the surface of the aluminum electrode (2) that is exposed around the bump electrode (3). A conductive adhesive (8) is applied as a bonding layer to the tip portion of the bump electrode (3) of the semiconductor device by a transfer method or a printing method. The semiconductor device is aligned in the face-down state in such a manner that the bump electrode (3) abuts on a terminal electrode (7) of a circuit board (6), and is provided on a circuit board (14). In this state, the conductive adhesive (8) is hardened. A gap between the IC substrate (1) and the circuit board (6) is filled with an insulating resin (9).

FIGURE 2