SEMICONDUCTOR DEVICE
AND
METHOD OF FABRICATING THE SAME

Abstract

There is provided a semiconductor device including a semiconductor chip (1), a wiring (2) making electrical connection with the semiconductor chip (1) and containing copper (Cu) therein, a solder ball (11) making contact with the wiring (2) and containing tin (Sn) therein, and a layer (21) made of copper-tin (Cu-Sn) alloy, sandwiched between the wiring (2) and the solder ball (11), characterized in that the layer (21) has a thickness equal to or greater than about 1.87 micrometers. The copper-tin alloy layer (21) strengthens connection between the wiring (2) and the solder ball (11), and hence, ensures reduction in occurrence of breakage and/or cracking in the wiring (2) and the solder ball (11). As a result, it would be possible to avoid the solder ball (11) from being separated from the wiring (2) due to the breakage and cracking. Accordingly, a fabrication yield of the semiconductor device can be enhanced.

Fig 5A

This Sheet Has Been Replaced

