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(54) Title: A CONTROL METHOD FOR COPPER CONTENT IN A SOLDER DIPPING BATH

(57) Abstract: This method controls a copper density in a dip solder bath holding a molten solder alloy containing at least copper as an essential composition thereof during a dip soldering step of one of a printed circuit board with a surfaced copper foil and a component part having a copper lead attached thereto. The method includes a step of introducing a replenished solder containing no copper at all or a copper content having a density lower than that of the molten solder in the bath prior to the supply of the replenished solder to the bath so that the copper density in the bath is controlled to a predetermined constant density or lower. The molten solder alloy in the bath contains tin, copper, and nickel as the major compositions thereof, and the replenished solder contains nickel and balanced tin, for example. Alternatively, the molten solder alloy in the bath contains tin, copper, and silver as the major components thereof, and the replenished solder contains silver and balanced tin. The copper density of the molten solder in the bath is controlled to less than 0.85 weight % at a solder temperature of about 255 °C.

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