## Abstract of the Disclosure


### METHOD OF FORMING LEAD-FREE BUMP INTERCONNECTIONS

A method of forming solder bumps on a chip or wafer for flip-chip applications comprises the steps of providing a chip or wafer having a plurality of metal bonds pads which provide electrical connection to the chip or wafer, and applying a solder bump comprising pure tin or a tin alloy selected from tin-copper, tin-silver, tin-bismuth or tin-silver-copper by an electroplating technique, and melting the solder bumps by heating to a temperature above the bump melting point to effect reflow.

Fig. 3