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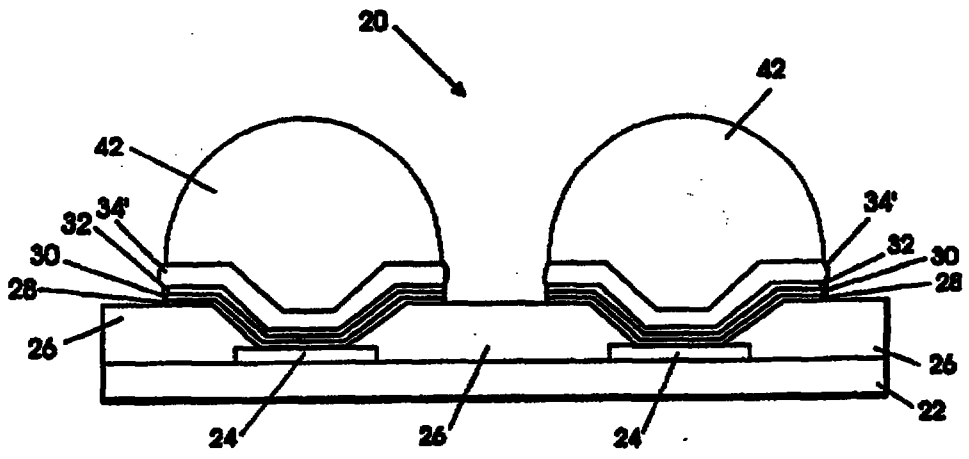
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(54) Title: SOLDER BUMP FABRICATION METHODS AND STRUCTURE INCLUDING A TITANIUM BARRIER LAYER



(57) Abstract

A method for fabricating solder bumps on a microelectronic device having contact pads includes the steps of depositing a titanium barrier layer on the device, forming an under bump metallurgy layer on the titanium barrier layer, and forming one or more solder bumps on the under bump metallurgy layer. The solder bump or bumps define exposed portions of the under bump metallurgy layer which are removed, and then the exposed portion of the titanium barrier layer is removed. The titanium barrier layer protects the underlying microelectronic device from the etchants used to remove the under bump metallurgy layer. The titanium layer also prevents the under bump metallurgy layer from forming a residue on the underlying microelectronic device. Accordingly, the titanium barrier layer allows the under bump metallurgy layer to be quickly removed without leaving residual matter, thereby reducing the possibility of electrical shorts between solder bumps.