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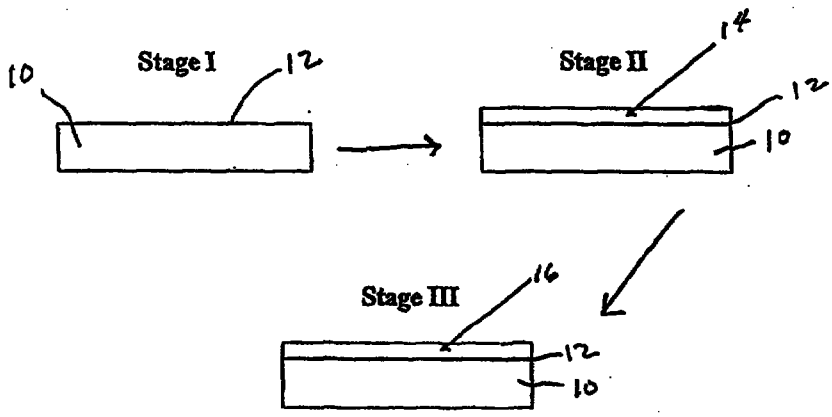
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(54) Title: SEMICONDUCTOR COPPER BOND PAD SURFACE PROTECTION




(57) Abstract

Methods for protecting the surface of an uninsulated portion of a copper circuit from environmental contamination detrimental to joining the surface to another metal surface, said method characterized by the step of coating the surface with a layer of a ceramic material having a thickness that is suitable for soldering without fluxing and that is sufficiently frangible when the surfaces are being joined to obtain metal–to–metal contact between the surfaces. Coated electronic packages including semiconductor wafers are also disclosed.