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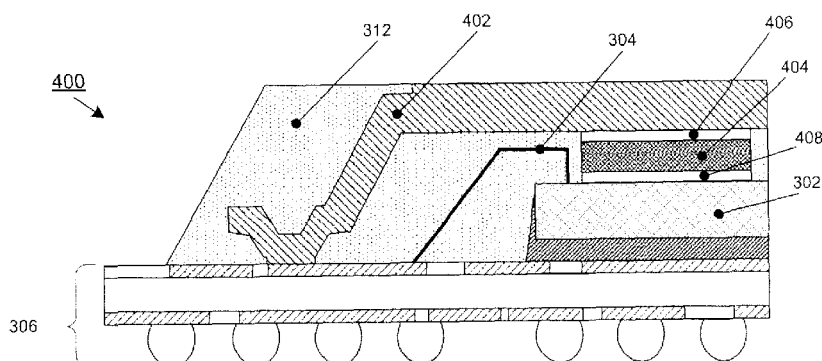


FIG. 4

(57) Abstract: In a semiconductor chip, a thermal adhesive is used to bond an internal heat spreader to an active functional die. In an alternative embodiment a dummy die is placed directly on top of the active functional die and a thermal adhesive is used to bond an internal heat spreader to the dummy die. This provides a direct and relatively low thermal conductivity path from the heat source, i.e., the functional device to the top of the package, that is, the internal metal heat spreader which is also exposed to the air.