

THERMAL DEFORMATION MANAGEMENT FOR CHIP CARRIERS

ABSTRACT

A chip carrier (14) constituted of an organic laminate which incorporates structure compensating for thermal deformation of the carrier (14). Moreover, disclosed is a method of counteracting the thermal deformations encountered by chip carriers, especially during solder reflow, which is predicated on the uniformly, equidistant positioning of metal-plated through-holes (PTH) (10) formed in the chip carrier (14) relative to contact pads. A plurality of plated through-holes (PTH) (10) are positioned equidistantly relative to contact (BGA) pads (12) on a surface of a substrate which comprises an organic laminate material, so as to be able to control both in-plane and out-of-plane thermal deformations in the chip carrier (14) material which may be occasioned in a solder reflow furnace or oven.

FIG.3

This Sheet Has Been Replaced

