THERMALLY ENHANCED THIN PLASTIC PACKAGE AND METHOD OF FABRICATION

ABSTRACT OF THE DISCLOSURE

A method of fabricating a semiconductor package and the package. The method comprises the steps of providing a tool (41) for positioning a lead frame (45) relative to a semiconductor chip (21) with the lead frame (45) spaced from the chip (21). A semiconductor chip (21) having a surface containing electronic components thereon and having a thickness in a direction normal to that surface substantially less than the length and width dimension of the chip (21) is disposed on the tool (41). A lead frame (45) is disposed on the tool (41) having a base portion and leads extending from the base portion and spaced from the chip (21), the thickness dimension of the lead frame (45) from the base portion to the leads being no greater than the thickness of the chip (21). Wires are bonded between the leads and the chip and the chip, wires and a portion of the lead frame are encapsulated. The lead frame (45) is disposed on the tool (41) within a volume having the chip surface as one surface thereof and the surface of the chip opposing the one surface as an opposing surface thereof. The wires are sufficiently rigid to prevent movement of the lead frame out of the volume.

Figure 2 & 3a