ABSTRACT

HYBRID BONDING OF A THIN SEMICONDUCTOR DIE

When locating a semiconductor die on a substrate, the die is picked up and carried with a die-holding surface of a bonding tool having a protrusion. The protrusion of the bonding tool is configured to be movable between a retracted position within the die-holding surface and an extended position protruding from the die-holding surface. When the protrusion is located in the extended position, the die is bent when the bonding tool is carrying the die. Thereafter, the bonding tool is moved to flatten the die against the substrate while the substrate urges the protrusion to retract from the extended position towards the retracted position.

(FIG. 6)