Abstract

SEMICONDUCTOR DEVICE AND METHOD OF FORMING RECONSTITUTED WAFER WITH LARGER CARRIER TO ACHIEVE MORE EWLB PACKAGES PER WAFER WITH ENCAPSULANT DEPOSITED UNDER TEMPERATURE AND PRESSURE

A semiconductor wafer has a plurality of semiconductor die distributed over a surface area. The semiconductor die are singulated from the semiconductor wafer. The semiconductor die are mounted to a carrier to form a reconstituted semiconductor wafer. The carrier has a surface area 10-50% larger than the surface area of the semiconductor wafer. The number of semiconductor die mounted to the carrier is greater than a number of semiconductor die singulated from the semiconductor wafer. The reconstituted wafer is mounted within a chase mold. The chase mold is closed with the semiconductor die disposed within a cavity of the chase mold. An encapsulant is dispersed around the semiconductor die within the cavity under temperature and pressure. The encapsulant can be injected into the cavity of the chase mold. The reconstituted wafer is removed from the chase mold. An interconnect structure is formed over the reconstituted wafer.
(Fig 4d)