Abstract

SEMICONDUCTOR DEVICE AND METHOD OF FORMING RDL USING UV-CURED CONDUCTIVE INK OVER WAFER LEVEL PACKAGE

A semiconductor device has a semiconductor die and first insulating layer formed over the semiconductor die. A patterned trench is formed in the first insulating layer. A conductive ink is deposited in the patterned trench by disposing a stencil over the first insulating layer with an opening aligned with the patterned trench and depositing the conductive ink through the opening in the stencil into the patterned trench. Alternatively, the conductive ink is deposited by dispensing the conductive ink through a nozzle into the patterned trench. The conductive ink is cured by ultraviolet light at room temperature. A second insulating layer is formed over the first insulating layer and conductive ink. An interconnect structure is formed over the conductive ink. An encapsulant can be deposited around the semiconductor die. The patterned trench is formed in the encapsulant and the conductive ink is deposited in the patterned trench in the encapsulant.
(Fig.7b)