

Abstract

SEMICONDUCTOR DEVICE AND METHOD OF FORMING EMI SHIELDING LAYER WITH CONDUCTIVE MATERIAL AROUND SEMICONDUCTOR DIE

A semiconductor device has a plurality of first semiconductor die mounted over an interface layer formed over a temporary carrier. An encapsulant is deposited over the first die and carrier. A flat shielding layer is formed over the encapsulant. A channel is formed through the shielding layer and encapsulant down to the interface layer. A conductive material is deposited in the channel and electrically connected to the shielding layer. The interface layer and carrier are removed. An interconnect structure is formed over conductive material, encapsulant, and first die. The conductive material is electrically connected through the interconnect structure to a ground point. The conductive material is singulated to separate the first die. A second semiconductor die can be mounted over the first die such that the shielding layer covers the second die and the conductive material surrounds the second die or the first and second die.

(Fig. 4)