Abstract

SEMICONDUCTOR DEVICE AND METHOD OF FORMING AN INDUCTOR ON POLYMER MATRIX COMPOSITE SUBSTRATE

A semiconductor device has a first insulating layer formed over a first surface of a polymer matrix composite substrate. A first conductive layer is formed over the first insulating layer. A second insulating layer is formed over the first insulating layer and first conductive layer. A second conductive layer is formed over the second insulating layer and first conductive layer. The second conductive layer is wound to exhibit inductive properties. A third conductive layer is formed between the first conductive layer and second conductive layer. A third insulating layer is formed over the second insulating layer and second conductive layer. A bump is formed over the second conductive layer. A fourth insulating layer can be formed over a second surface of the polymer matrix composite substrate. Alternatively, the fourth insulating layer can be formed over the first insulating layer prior to forming the first conductive layer.
(Fig 3i)