

SEMICONDUCTOR APPARATUS AND ELECTRONIC DEVICE THAT INCLUDES SEMICONDUCTOR APPARATUS

ABSTRACT

Embodiments disclosed in this application relate to a semiconductor apparatus and an
5 electronic device including the semiconductor apparatus. The semiconductor apparatus includes:
a first semiconductor layer; a second die; a thermally conductive layer, where the thermally
conductive layer is stacked with the first semiconductor layer and the second die, is located
between the first semiconductor layer and the second die, and is configured to conduct heat from
the first semiconductor layer and/or heat from the second die at the thermally conductive layer,
10 and a coefficient of thermal conductivity of the thermally conductive layer in a horizontal direction
is greater than or equal to a coefficient of thermal conductivity in a vertical direction; and a first
conductive pillar, where the first conductive pillar penetrates through the thermally conductive
layer, so that the first semiconductor layer and the second die are electrically interconnected by
using the first conductive pillar, the first conductive pillar is electrically insulated from the
15 thermally conductive layer, an extension direction of the first conductive pillar is the vertical
direction, and the coefficient of thermal conductivity of the thermally conductive layer in the
horizontal direction is greater than a coefficient of thermal conductivity of the first semiconductor
layer. The thermally conductive layer is disposed, and such a semiconductor device can eliminate
a local hot spot effect.

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FIG. 1A