

SEMICONDUCTOR DEVICE AND METHOD FOR MANUFACTURING THE SAME

ABSTRACT

A semiconductor chip is bonded on a radiator plate consisting of copper material with interposition of a bonding layer having a total thickness of 80 μm comprising a laminated structure including a thermoplastic film bonding layer 12a having a thickness of 50 μm and a paste-based bonding layer 12b having a thickness of 30 μm . For example, butadiene-modified polyolefin-based adhesive resin mixed with alumina fine power is used as material of the thermoplastic film bonding layer 12a, and, for example, silicone rubber-modified epoxy-based adhesive resin mixed with silver powder is used as material of the paste-based bonding layer 12b. There is thus provided a semiconductor device having a semiconductor chip bonded on a radiator plate with interposition of a bonding layer, wherein stress concentration caused in the bonding layer is relaxed and heat dissipation performance is maintained and thus the reliability in endurance is high, and a method for manufacturing the semiconductor device.

FIGURE 2