

ABSTRACT

A semiconductor device includes a plurality of middle interconnections and a plurality of middle plugs, which are disposed in an interlayer insulating layer and on a substrate. An upper insulating layer is disposed on the interlayer insulating layer. A first upper plug, a first upper interconnection, a second upper plug, and a second upper interconnection are disposed in the upper insulating layer. Each of the plurality of middle interconnections has a first thickness. The first upper interconnection has a second thickness that is greater than the first thickness. The second upper interconnection has a third thickness that is greater than the first thickness. The third thickness is twice to 100 times the first thickness. The second upper interconnection includes a material different from the second upper plug.

FIG. 1