

ABSTRACT

SEMICONDUCTOR DEVICE AND METHOD FOR MANUFACTURING THE SAME

A semiconductor device that occupies a small area and has a high degree of integration is provided. The semiconductor device includes a first insulating layer, a conductive layer, and a second insulating layer. The conductive layer is between the first insulating layer and the second insulating layer. The first insulating layer, the conductive layer, and the second insulating layer overlap with each other in a region. A contact plug penetrates the first insulating layer, the conductive layer, and the second insulating layer. In a depth direction from the second insulating layer to the first insulating layer, a diameter of the contact plug changes to a smaller value at an interface between the second insulating layer and the conductive layer.

Fig. 1A