

ABSTRACT

VERTICAL SEMICONDUCTOR DEVICE AND METHOD FOR FABRICATING THE VERTICAL SEMICONDUCTOR DEVICE

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A vertical semiconductor device includes: a lower structure; a multi-layer stack structure including a source layer formed over the lower structure and gate electrodes formed over the source layer; a vertical structure penetrating the multi-layer stack structure and including a channel layer insulated from the source layer; a vertical source line spaced apart from the vertical structure to penetrate the multi-layer stack structure and contacting the source layer; and a horizontal source channel contact suitable for coupling the source layer and the channel layer and including a first conductive layer and
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15 a second conductive layer that include different dopants.

(FIG. 1)