

ABSTRACT

A semiconductor device is disclosed. The semiconductor device includes an active pattern extending in a first direction; a plurality of channel layers spaced apart from each other on the active pattern in a vertical direction and including lower channel layers and upper channel layers; an intermediate insulating layer between an uppermost lower channel layer and a lowermost upper channel layer; a gate structure intersecting the active pattern, surrounding the plurality of channel layers, and extending in a second direction intersecting the first direction; a lower source/drain region on a first side of the gate structure and connected to the lower channel layers; a blocking structure on a second side of the gate structure and connected to the lower channel layers; and an upper source/drain region on at least one side of the gate structure.

FIG. 2