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(54) **SEMICONDUCTOR DEVICES AND
METHODS OF MANUFACTURING THE
SAME**

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ABSTRACT

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A semiconductor device includes channels, a gate structure, and a source/drain layer. The channels are stacked in a vertical direction. Each channel extends in a first direction. The gate structure extends in a second direction. The gate structure covers the channels. The source/drain layer is connected to each of opposite sidewalls in the first direction of the channels on the substrate, and includes a doped semiconductor material. The source/drain layer includes first and second epitaxial layers having first and second impurity concentrations, respectively. The first epitaxial layer covers a lower surface and opposite sidewalls in the first direction of the second epitaxial layer. A portion of each of opposite sidewalls in the first direction of the gate structure protrudes in the first direction from opposite sidewalls in the first direction of the channels to partially penetrate through the first epitaxial layer but not to contact the second epitaxial layer.

