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(54) SEMICONDUCTOR MEMORY DEVICE AND METHOD OF MANUFACTURING THE SAME

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(57)ABSTRACT

A semiconductor memory device includes a semiconductor substrate; a plurality of word line layers on the semiconductor substrate, each word line layer of the plurality of word line layers including an insulating line and a word line; a plurality of insulating layers in spaces between the plurality of word line layers, the plurality of insulating layers being apart from each other in a vertical direction on the semiconductor substrate; a channel structure extending in the vertical direction on the semiconductor substrate, the channel structure including a channel region and a gate dielectric layer surrounding the channel region; and a bit line on the channel structure, the bit line extending in a first horizontal direction perpendicular to the vertical direction and being connected to the channel structure, wherein the word line of each word line layer of the plurality of word line layers has a meandering shape.

