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(54) **SEMICONDUCTOR MEMORY DEVICE AND MANUFACTURING METHOD THEREOF**

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(57) **ABSTRACT**

A semiconductor device includes a bit line extending in a first direction on a substrate. A first insulating pattern is disposed on the bit line. A channel pattern is disposed on an upper side of the bit line and a lateral side of the first insulating pattern. The channel pattern includes an oxide semiconductor material. A gate insulating pattern is disposed on the channel pattern. Word lines are disposed on the gate insulating pattern. A second insulating pattern is disposed on the word lines. A landing pad is disposed on the channel pattern. An interlayer insulating layer disposed between the bit line and the channel pattern.

