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(54) **SEMICONDUCTOR MEMORY DEVICE AND
METHOD OF FABRICATING THE SAME**

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ABSTRACT

The present disclosure provides a semiconductor memory device and a fabricating method thereof, which includes a substrate, a bit line structure and a resistor structure. The substrate has a plurality of active areas and an isolating region. The resistor structure includes a first semiconductor layer and a first capping layer from bottom to top. The bit line structure includes a second semiconductor layer, a first conductive layer, and a second capping layer from bottom to top, wherein the first semiconductor layer and the second semiconductor layer include coplanar top surface and a same semiconductor material. In this way, the resistor formed thereby is allowable to obtain structural reliability and stable surface resistance, under a simplified process flow.

