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(54) **SEMICONDUCTOR DEVICE**

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ABSTRACT

A semiconductor device includes a substrate, a first well region, a second well region, an isolation region, a first resistor segment and a second resistor segment. The substrate includes a region having a first conductivity type. The first and the second well regions are disposed in the region of the substrate. The isolation region is disposed on the first and the second well regions. The first and the second resistor segments are electrically connected to each other and disposed on the isolation region. Moreover, the first and the second well regions are disposed directly under the first and the second resistor segments, respectively. The first and the second well regions do not overlap with each other in a vertical projection direction and have a second conductivity type that is opposite to the first conductivity type.

