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(54) **SEMICONDUCTOR DEVICE INCLUDING  
FERROELECTRIC LAYER**

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(57) **ABSTRACT**

Provided is a semiconductor device including a ferroelectric layer. The semiconductor device includes a channel layer including an n-type oxide semiconductor layer and a p-type oxide semiconductor layer, a ferroelectric layer disposed on the channel layer, a gate electrode disposed on the ferroelectric layer, and a reduced layer disposed on the channel layer and including an element having greater reducing power than a metal included in the channel layer.

