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(54) SEMICONDUCTOR DEVICE HAVING BURIED GATE STRUCTURE AND METHOD FOR FABRICATING THE SAME

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(57)ABSTRACT

A semiconductor device includes: a substrate; a first source/ drain region and a second source/drain region spaced apart from each other by a trench in the substrate; and a gate structure in the trench, wherein the gate structure includes: a gate dielectric layer formed on a bottom and sidewalls of the trench; a first gate electrode positioned in a bottom portion of the trench over the gate dielectric layer; a second gate electrode positioned over the first gate electrode; and a dipole inducing layer formed between the first gate electrode and the second gate electrode and between sidewalls of the second gate electrode and the gate dielectric layer.

