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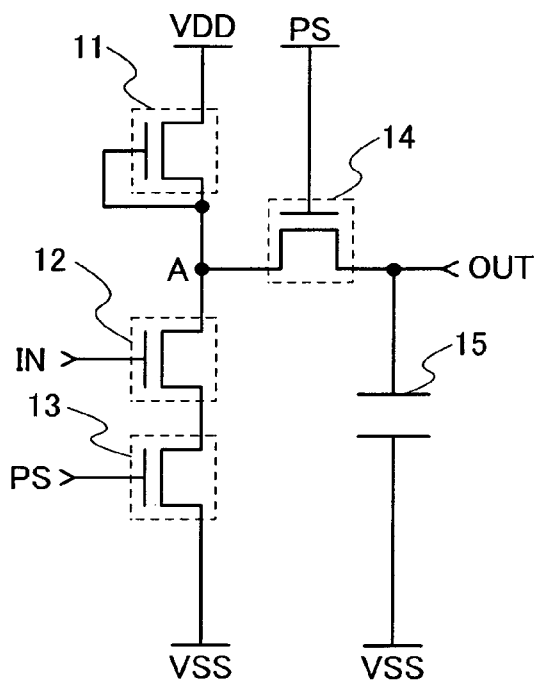
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(54) Title: LOGIC CIRCUIT AND SEMICONDUCTOR DEVICE

FIG. 1A



(57) Abstract: A logic circuit includes a thin film transistor having a channel formation region formed using an oxide semiconductor, and a capacitor having terminals one of which is brought into a floating state by turning off the thin film transistor. The oxide semiconductor has a hydrogen concentration of 5×10^{19} (atoms/cm³) or less and thus substantially serves as an insulator in a state where an electric field is not generated. Therefore, off-state current of a thin film transistor can be reduced, leading to suppressing the leakage of electric charge stored in a capacitor, through the thin film transistor. Accordingly, a malfunction of the logic circuit can be prevented. Further, the excessive amount of current which flows in the logic circuit can be reduced through the reduction of off-state current of the thin film transistor, resulting in low power consumption of the logic circuit.



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