

Title (en)

CAPACITOR COMPRISING A STACK OF LAYERS MADE OF A SEMICONDUCTOR MATERIAL HAVING A WIDE BANDGAP

Title (de)

KONDENSATOR MIT EINEM STAPEL VON SCHICHTEN AUS EINEM HALBLEITERMATERIAL MIT BREITER BANDLÜCKE

Title (fr)

CONDENSATEUR COMPRENANT UN EMPILEMENT DE COUCHES EN MATERIAU SEMI-CONDUCTEUR A LARGE BANDE INTERDITE

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2022185014A1] The invention relates to a capacitor (10) comprising a stack of layers (1) made of a semiconductor material having a band gap energy greater than 2.3 eV, the stack of layers (1) comprising: an electrically insulating intermediate layer (3) having a resistivity greater than 10 kohm.cm and comprising n- or p-type deep dopants producing energy levels more than 0.4 eV from the conduction band or the valence band of the semiconductor material, two contact layers (2a, 2b) having a resistivity less than or equal to 10 kohm.cm and comprising dopants of a type opposite to that of the deep dopants of the intermediate layer (3), the two contact layers (2a, 2b) being arranged on either side of the intermediate layer (3) to form two junctions pn.

IPC 8 full level

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