

Title (en)

GROUP III-NITRIDE HIGH-ELECTRON MOBILITY TRANSISTORS AND PROCESS FOR MAKING THE SAME

Title (de)

GRUPPE-III-NITRID-TRANSISTOREN MIT HOHER ELEKTRONENMOBILITÄT UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

TRANSISTORS À MOBILITÉ D'ÉLECTRONS ÉLEVÉE AU NITRURE DU GROUPE III ET PROCÉDÉ DE FABRICATION Y RELATIF

Publication

EP 4292132 A1 20231220 (EN)

Application

EP 22753113 A 20220120

Priority

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- US 2022013085 W 20220120

Abstract (en)

[origin: WO2022173571A1] An apparatus to address gate lag effect and/or other negative performance includes a substrate; a group III-Nitride buffer layer on the substrate; a group III-Nitride barrier layer on the group III-Nitride buffer layer, the group III-Nitride barrier layer may include a higher bandgap than a bandgap of the group III-Nitride buffer layer; a source electrically coupled to the group III-Nitride barrier layer; a gate electrically coupled to the group III-Nitride barrier layer; a drain electrically coupled to the group III-Nitride barrier layer; and a p-region being arranged at least in the substrate. In particular, the p-region extends toward a source side of the substrate; and the p-region extends toward a drain side of the substrate.

IPC 8 full level

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CPC (source: EP KR)

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