

Title (en)
HEMT TRANSISTOR

Title (de)
HEMT-TRANSISTOR

Title (fr)
TRANSISTOR HEMT

Publication
EP 4078681 A1 20221026 (FR)

Application
EP 20824594 A 20201218

Priority
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Abstract (en)
[origin: WO2021123382A1] The invention relates to a high-mobility field-effect transistor (100) comprising: - a stack (10) along a Z axis deposited on a substrate (11) and comprising a buffer layer (12), a barrier layer (13), a heterojunction (15) between the buffer layer (12) and the layer (13) and a two-dimensional electron gas (9) located in an XY plane perpendicular to the Z axis and near the heterojunction (15), - a source (S), a drain (D), and a gate (G) deposited on an upper face (14) of the barrier layer (13) between the source and the drain, - a first dielectric layer (PL1) having a relative permittivity ϵ_r and thickness e such that: $0.5 \text{ nm} \leq e/\epsilon_r \leq 2 \text{ nm}$, - a metal pad (PM) arranged between the gate (G) and the drain (D) and deposited on the first dielectric layer (PL1), the metal pad being electrically connected to the gate.

IPC 8 full level
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Citation (search report)
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