

Title (en)
LATERAL HIGH-VOLTAGE SIDEWALL TRANSISTOR

Title (de)
LATERALER HOCHVOLT-SEITENWANDTRANSISTOR

Title (fr)
TRANSISTOR LATERAL HAUTE TENSION DE PAROI LATÉRALE

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Application
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Abstract (en)
[origin: DE19818300C1] The invention relates to a lateral high-voltage sidewall transistor, wherein successively alternating semiconductor layers (4, 3) having a first and a second type of conductivity are provided on a slightly doped semiconductor substrate (1) having a second type of conductivity. A source area (10) having a first type of conductivity and a drain area (9) having a first type of conductivity extend through the semiconductor layers (4, 3) to the semiconductor substrate. The same applies to a gate (G) consisting of a gate trench fitted with a gate insulation layer (12) and filled with conductive material (14), which also extends through the semiconductor layers (4, 3) to the semiconductor body (1) and is located in the boundary area with the source area (10) in the direction of the drain area (9). At least a semiconductor area (11) having a second type of conductivity is provided on one side of the source area (10) and the gate trench, said area extending to the semiconductor substrate (1), below the source area (10) and partially below the gate trench.

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