Title (en)

SEMICONDUCTOR POWER SWITCH AND METHOD FOR PRODUCING A SEMICONDUCTOR POWER SWITCH

Title (de)

HALBLEITER-LEISTUNGSSCHALTER UND VERFAHREN ZUR HERSTELLUNG EINES HALBLEITER-LEISTUNGSSCHALTERS

Title (fr)

INTERRUPTEUR DE PUISSANCE À SEMI-CONDUCTEUR ET PROCÉDÉ DE FABRICATION D'UN INTERRUPTEUR DE PUISSANCE À SEMI-CONDUCTEUR

Publication

**EP 3011597 A1 20160427 (DE)**

Application

**EP 14728956 A 20140606**

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Abstract (en)

[origin: WO2014202410A1] The invention relates to a semiconductor power switch (100) comprising a carrier substrate (110) and a first semiconductor layer (130) consisting of a first semiconductor material which is applied to the carrier substrate (110). Furthermore, the semiconductor power switch (100) comprises a second semiconductor layer (135) consisting of a second semiconductor material which is applied to the first semiconductor layer (130), wherein the band gap of the first semiconductor material differs from the band gap of the second semiconductor material. The semiconductor power switch (100) also comprises a drain connection (145) and a source connection (150), which are embedded at least in the second semiconductor layer (135), wherein electrical contact can be made with at least one interface (140) between the first and second semiconductor materials by means of the drain connection (145) and the source connection (150). In addition, the semiconductor power switch (100) comprises a channel region (155) between the drain connection (145) and the source connection (150), wherein the channel region (155) is formed in order to act as electrical power switch. Finally, the semiconductor power switch (100) comprises a gate connection (170), which at least partially covers the channel region (155).

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

See references of WO 2014202410A1

Citation (examination)

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