Title (en)

SILICON ON INSULATOR HIGH-VOLTAGE SWITCH

Title (de)

SOI-HOCHSPANNUNGSSCHALTER

Title (fr)

INTERRUPTEUR A HAUTE TENSION A SILICIUM SUR ISOLANT

Publication

EP 1048079 A1 20001102 (DE)

Application

EP 98965105 A 19981207

Priority

- DE 9803592 W 19981207
- DE 19800647 A 19980109

Abstract (en)

[origin: DE19800647C1] The SOI (semiconductor-on-insulator) switch has a drift zone (11) of given conductivity within the drain zone (2,3) between a gate electrode (6) and a drain electrode (7,D) of the FET structure, with vertical troughs (8) formed in the drift zone and filled with semiconductor material (9,10) of opposite type. The vertical troughs may be filled with a polycrystalline silicon which is doped with a material of opposite conductivity type to the drift zone, with doping of the surrounding area by diffusion. The troughs may be provided in a grid structure.

IPC 1-7

H01L 29/739; H01L 29/78; H01L 29/06

IPC 8 full level

H01L 21/336 (2006.01); **H01L 29/06** (2006.01); **H01L 29/40** (2006.01); **H01L 29/739** (2006.01); **H01L 29/78** (2006.01); **H01L 29/786** (2006.01); H03K 17/10 (2006.01)

CPC (source: EP US)

H01L 29/0619 (2013.01 - EP US); **H01L 29/0634** (2013.01 - EP US); **H01L 29/404** (2013.01 - EP US); **H01L 29/66674** (2013.01 - EP US); **H01L 29/66681** (2013.01 - EP US); **H01L 29/7394** (2013.01 - EP US); **H01L 29/7824** (2013.01 - EP US); H01L 29/402 (2013.01 - EP US); H03K 17/102 (2013.01 - EP US)

Citation (search report)

See references of WO 9935695A1

Designated contracting state (EPC)

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