

Title (en)  
HIGH-THRESHOLD SOI THIN FILM TRANSISTOR

Title (de)  
HOCHVOLT-SOI-DÜNNFILMTRANSISTOR

Title (fr)  
TRANSISTOR SOI A COUCHE MINCE HAUTE TENSION

Publication  
**EP 0968534 A1 20000105 (DE)**

Application  
**EP 98966495 A 19981125**

Priority  
• DE 9803468 W 19981125  
• DE 19755868 A 19971216

Abstract (en)  
[origin: DE19755868C1] The transistor has a semiconductor thin layer (3) of one conductive type. This is embedded in an insulating layer (2) arranged on a semiconductor body (1). The transistor also has a drain zone (5) as well as a source zone (4) both formed in the semiconductor thin layer (3). The drain zone and the source zone are of a conductive type opposite to that of the first type. A gate electrode (11) is provided in or on the insulator layer (2). At least one field plate (8,9,10) is arranged between the gate electrode (11) and the drain zone (5). The distance between the field plate and the semiconductor thin layer increases with increasing distance from the gate electrode (11). Highly doped zones (7) of the second conductivity type in the thin layer (3) are connected to the field plate.

IPC 1-7  
**H01L 29/786**; **H01L 29/06**

IPC 8 full level  
**H01L 29/06** (2006.01); **H01L 29/40** (2006.01); **H01L 29/786** (2006.01)

CPC (source: EP)  
**H01L 29/404** (2013.01); **H01L 29/78624** (2013.01)

Citation (search report)  
See references of WO 9931734A1

Designated contracting state (EPC)  
AT DE FR GB IE IT

DOCDB simple family (publication)  
**DE 19755868 C1 19990408**; EP 0968534 A1 20000105; JP 2001511955 A 20010814; WO 9931734 A1 19990624

DOCDB simple family (application)  
**DE 19755868 A 19971216**; DE 9803468 W 19981125; EP 98966495 A 19981125; JP 53187599 A 19981125