

Title (en)

POWER MOSFET

Title (de)

LEISTUNGS-MOSFET

Title (fr)

TRANSISTOR MOS DE PUISSANCE

Publication

EP 1048074 A1 20001102 (DE)

Application

EP 98966510 A 19981207

Priority

- DE 9803589 W 19981207
- DE 19801095 A 19980114

Abstract (en)

[origin: DE19801095A1] A power MOSFET has a highly conductive connection (9) between its source zone (4) and its semiconductor substrate (1). Preferred Features: The conductive connection may be: (a) a first conductivity type heavily doped semiconductor zone; (b) a trench from which the first conductivity type dopant diffuses outwardly and which is filled with single crystal silicon or polysilicon; or (c) a trench which is filled with a metal, especially tungsten, or a highly conductive layer, especially titanium nitride.

IPC 1-7

H01L 23/48; H01L 23/367

IPC 8 full level

H01L 29/417 (2006.01); **H01L 29/78** (2006.01); **H01L 29/06** (2006.01); **H01L 29/41** (2006.01); **H01L 29/423** (2006.01)

CPC (source: EP US)

H01L 29/4175 (2013.01 - EP US); **H01L 29/7816** (2013.01 - EP US); **H01L 29/7834** (2013.01 - EP US); **H01L 29/7835** (2013.01 - EP US); **H01L 29/0696** (2013.01 - EP US); **H01L 29/41** (2013.01 - EP US); **H01L 29/41766** (2013.01 - EP US); **H01L 29/4236** (2013.01 - EP US); **H01L 2924/0002** (2013.01 - EP US)

Citation (search report)

See references of WO 9936961A1

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

DE 19801095 A1 19990715; **DE 19801095 B4 20071213**; EP 1048074 A1 20001102; JP 2002510147 A 20020402; US 6459142 B1 20021001; WO 9936961 A1 19990722

DOCDB simple family (application)

DE 19801095 A 19980114; DE 9803589 W 19981207; EP 98966510 A 19981207; JP 2000540579 A 19981207; US 61662000 A 20000714