

Title (en)

POWER SEMICONDUCTOR DEVICE WITH INTERCONNECTED GATE TRENCHES

Title (de)

STROMHALBLEITERVORRICHTUNG MIT VERBUNDENEN GATE-GRÄBEN

Title (fr)

DISPOSITIF SEMI-CONDUCTEUR DE PUISSANCE COMPRENANT DES TRANCHEES DE GRILLE INTERCONNECTEES

Publication

EP 1917683 A4 20081105 (EN)

Application

EP 06801678 A 20060816

Priority

- US 2006032060 W 20060816
- US 70902005 P 20050817
- US 50474006 A 20060815

Abstract (en)

[origin: WO2007022316A2] A power semiconductor device which includes a plurality of gate trenches and a perimeter trench intersecting the gate trenches.

IPC 8 full level

H01L 29/78 (2006.01); **H01L 29/423** (2006.01); **H01L 29/40** (2006.01); **H01L 29/417** (2006.01); **H01L 29/739** (2006.01)

CPC (source: EP US)

H01L 29/4238 (2013.01 - EP); **H01L 29/7811** (2013.01 - EP US); **H01L 29/7813** (2013.01 - EP US); **H01L 29/407** (2013.01 - EP); **H01L 29/41766** (2013.01 - EP); **H01L 29/4236** (2013.01 - EP); **H01L 29/42368** (2013.01 - EP); **H01L 29/42372** (2013.01 - EP); **H01L 29/7397** (2013.01 - EP)

Citation (search report)

- [X] EP 1351313 A2 20031008 - SILICONIX INC [US]
- [X] WO 0042665 A1 20000720 - FRAUNHOFER GES FORSCHUNG [DE], et al
- [A] JP H01192174 A 19890802 - HITACHI LTD
- [A] US 6309929 B1 20011030 - HSU CHIH-WEI [TW], et al
- See references of WO 2007022316A2

Citation (examination)

- JP H10214968 A 19980811 - HITACHI LTD, et al
- US 2004173844 A1 20040909 - WILLIAMS RICHARD K [US], et al

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2007022316 A2 20070222; WO 2007022316 A3 20070712; EP 1917683 A2 20080507; EP 1917683 A4 20081105; JP 2009505433 A 20090205; TW 200713430 A 20070401; TW I317971 B 20091201

DOCDB simple family (application)

US 2006032060 W 20060816; EP 06801678 A 20060816; JP 2008527120 A 20060816; TW 95130109 A 20060816