

Title (en)
A DMOS DEVICE WITH A PROGRAMMABLE THRESHOLD VOLTAGE

Title (de)
DMOS-BAUELEMENT MIT PROGRAMMIERBARER SCHWELLENSPANNUNG

Title (fr)
DISPOSITIF MOS A DOUBLE DIFFUSION A TENSION DE SEUIL PROGRAMMABLE

Publication
EP 1550150 A4 20090819 (EN)

Application
EP 03751848 A 20030811

Priority

- US 0325108 W 20030811
- US 21789302 A 20020813
- US 21801002 A 20020813

Abstract (en)
[origin: WO2004015745A2] A DMOS device is provided which is equipped with a floating gate having a first and second electrode in close proximity thereto. The floating gate is separated from one of the first and second electrodes by a thin layer of dielectric material whose dimensions and composition permit charge carriers to tunnel through the dielectric layer either to or from the floating gate. This tunneling phenomenon can be used to create a threshold voltage that may be adjusted to provide a precise current by placing a voltage between a programming electrode and the body/source and gate electrode of the device.

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G11C 16/04

IPC 8 full level
H01L 21/28 (2006.01); **H01L 21/336** (2006.01); **H01L 21/8247** (2006.01); **H01L 27/115** (2006.01); **H01L 29/06** (2006.01); **H01L 29/423** (2006.01); **H01L 29/78** (2006.01); **H01L 29/788** (2006.01)

CPC (source: EP KR US)
H01L 29/40114 (2019.07 - EP); **H01L 29/42324** (2013.01 - EP KR); **H01L 29/66825** (2013.01 - EP KR); **H01L 29/7801** (2013.01 - KR); **H01L 29/7802** (2013.01 - EP KR US); **H01L 29/7813** (2013.01 - EP KR); **H01L 29/7883** (2013.01 - EP KR); **H10B 41/30** (2023.02 - EP); **H10B 69/00** (2023.02 - EP KR)

Citation (search report)

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- [A] JP H08250718 A 19960927 - NIPPON DENSO CO
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- See references of WO 2004015745A2

Designated contracting state (EPC)
DE

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WO 2004015745 A2 20040219; WO 2004015745 A3 20040429; AU 2003269956 A1 20040225; AU 2003269956 A8 20040225; EP 1550150 A2 20050706; EP 1550150 A4 20090819; JP 2005536048 A 20051124; KR 20050056200 A 20050614; TW 200405571 A 20040401; TW I320232 B 20100201

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US 0325108 W 20030811; AU 2003269956 A 20030811; EP 03751848 A 20030811; JP 2004528026 A 20030811; KR 20057002475 A 20050214; TW 92122157 A 20030812