

Title (en)  
ELECTRICAL DEVICE HAVING A PROGRAMMABLE RESISTOR CONNECTED IN SERIES TO A PUNCH-THROUGH DIODE AND METHOD OF MANUFACTURING THEREFOR

Title (de)  
ELEKTRISCHE EINRICHTUNG MIT EINEM IN REIHE MIT EINER DURCHSCHLAGDIODE GESCHALTETEN PROGRAMMIERBAREN WIDERSTAND UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)  
DISPOSITIF ELECTRIQUE ET PROCEDE DE FABRICATION DE CE DISPOSITIF

Publication  
**EP 1759392 A2 20070307 (EN)**

Application  
**EP 05745512 A 20050609**

Priority  
• IB 2005051893 W 20050609  
• EP 04102744 A 20040616  
• EP 05745512 A 20050609

Abstract (en)  
[origin: WO2005124787A2] The present invention relates to an electrical device (Fig. 6) having a programmable resistor (PR) connected in series to a punch-through diode (S). The invention also relates to a method of manufacturing such an electrical device. The method comprises the steps of: providing a stack comprising a first layer of a semiconductor material of a first conductivity type arranged between a second layer and a third layer of a semiconductor material of a second conductivity type opposite to the first conductivity type, and providing a layer of material having a programmable resistivity, the layer of material having the programmable resistivity being in electrical contact with one of the second and third layer of the semiconductor material.

IPC 8 full level  
**G11C 16/02** (2006.01); **H01L 27/24** (2006.01)

CPC (source: EP KR)  
**B82Y 10/00** (2013.01 - EP); **G11C 13/0004** (2013.01 - EP); **G11C 13/0011** (2013.01 - EP); **G11C 13/0014** (2013.01 - EP); **G11C 16/10** (2013.01 - KR); **H01L 29/861** (2013.01 - KR); **H10B 63/20** (2023.02 - EP); **H10N 70/026** (2023.02 - EP); **H10N 70/063** (2023.02 - EP); **H10N 70/231** (2023.02 - EP); **H10N 70/245** (2023.02 - EP); **H10N 70/826** (2023.02 - EP); **H10N 70/8416** (2023.02 - EP); **H10N 70/8825** (2023.02 - EP); **H10N 70/8828** (2023.02 - EP)

Citation (search report)  
See references of WO 2005124787A2

Citation (examination)  
WO 0062346 A1 20001019 - KONINKL PHILIPS ELECTRONICS NV [NL]

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 MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**WO 2005124787 A2 20051229; WO 2005124787 A3 20060316**; CN 101006517 A 20070725; EP 1759392 A2 20070307; JP 2008503085 A 20080131; KR 20070049139 A 20070510; TW 200614234 A 20060501

DOCDB simple family (application)  
**IB 2005051893 W 20050609**; CN 200580027652 A 20050609; EP 05745512 A 20050609; JP 2007516106 A 20050609; KR 20077001141 A 20070116; TW 94119530 A 20050613