

Title (en)

LOW AREA SCREEN PRINTED METAL CONTACT STRUCTURE AND METHOD

Title (de)

SIEBDRUCK-METALLKONTAKTSTRUKTUR MIT GERINGEM FLÄCHENINHALT UND VERFAHREN

Title (fr)

STRUCTURE DE CONTACT MÉTALLIQUE DÉPOSÉE PAR SÉRIGRAPHIE DE FAIBLE SURFACE ET PROCÉDÉ CORRESPONDANT

Publication

EP 1955363 A1 20080813 (EN)

Application

EP 06804437 A 20061026

Priority

- AU 2006001603 W 20061026
- AU 2005906552 A 20051124
- AU 2005906662 A 20051129

Abstract (en)

[origin: WO2007059551A1] A solar cell comprises adjacent regions of oppositely doped semiconductor material forming a pn junction substantially parallel to front and rear surfaces of the solar cell. A surface of the semiconductor material has a plurality of depressions, with semiconductor material regions forming internal wall surface regions of the depressions being doped to the polarity of one of the semiconductor regions, with which they are in electrical communication. The wall surface regions of the depressions are isolated from the other oppositely doped semiconductor region and form contact points for a contact structure contacting the surface in which the depressions are formed. A dielectric layer is formed over the surface, the dielectric layer being thinner or non-existent in at least a portion of each depression, such that a screen printed metal contact structure formed over the dielectric layer and extending into the depressions makes contact with the semiconductor material in the depressions after sintering.

IPC 8 full level

H01L 31/0224 (2006.01)

CPC (source: EP KR)

H01L 31/022425 (2013.01 - EP); **H01L 31/022433** (2013.01 - EP); **H01L 31/04** (2013.01 - KR); **H01L 31/18** (2013.01 - KR); **Y02E 10/542** (2013.01 - EP)

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 2007059551 A1 20070531; **WO 2007059551 A8 20080717**; AU 2006317554 A1 20070531; EP 1955363 A1 20080813; EP 1955363 A4 20100106; KR 20080091104 A 20081009

DOCDB simple family (application)

AU 2006001603 W 20061026; AU 2006317554 A 20061026; EP 06804437 A 20061026; KR 20087015325 A 20080624