

Title (en)

TWO-STEP METHOD FOR JOINING A SEMICONDUCTOR TO A SUBSTRATE WITH CONNECTING MATERIAL BASED ON SILVER

Title (de)

ZWEISTUFIGES VERFAHREN ZUM FÜGEN EINES HALBLEITERS AUF EIN SUBSTRAT MIT VERBINDUNGSMATERIAL AUF SILBERBASIS

Title (fr)

PROCÉDÉ À DEUX NIVEAUX POUR ASSEMBLER UN SEMI-CONDUCTEUR SUR UN SUBSTRAT AVEC UN MATÉRIAUX DE L'IAISON À BASE D'ARGENT

Publication

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Application

EP 13715652 A 20130402

Priority

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Abstract (en)

[origin: WO2013167321A1] The invention relates to a method for joining a semiconductor (20) to a substrate (10), comprising the following steps: . applying a first paste layer (1) of a sintering paste to the substrate; . heating and compressing the first paste layer to form a first sintered layer; . applying a second paste layer (2) of a sintering paste to the first sintered layer and arranging a semiconductor (20) on the second paste layer; . heating and compressing the second paste layer (2) to form a second sintered layer. The invention further relates to a semiconductor component produced by means of the method.

IPC 8 full level

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Citation (search report)

See references of WO 2013167321A1

Citation (examination)

- JP 2008311371 A 20081225 - DENSO CORP
- EP 2425920 A1 20120307 - HERAEUS MATERIALS TECH GMBH [DE]
- CHRISTIAN MERTENS ED - MERTENS CHRISTIAN: "Die Niedertemperatur-Verbindungstechnik der Leistungselektronik", 1 January 2004, DIE NIEDERTEMPEARTUR-VERBINDUNGSTECHNIK DER LEISTUNGSELEKTRONIK (BOOK SERIES: FORTSCHRITT-BERICHTE VDI); [FORTSCHRITT-BERICHTE VDI : REIHE 21, ELEKTROTECHNIK ; 365], VDI VERLAG, DÜSSELDORF, GERMANY, PAGE(S) 1 - 35, 72, ISBN: 978-3-18-336521-0, XP002541611

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