

Title (en)

SEMICONDUCTOR COMPONENT ARRANGEMENT, METHOD FOR FABRICATION THEREOF AND HEAT DISSIPATION DEVICE

Title (de)

HALBLEITERBAUELEMENT-ANORDNUNG, VERFAHREN ZU DEREN HERSTELLUNG SOWIE ENTWÄRMUNGSEINRICHTUNG

Title (fr)

ENSEMBLE DE COMPOSANT SEMI-CONDUCTEUR, PROCÉDÉ POUR SA FABRICATION AINSI QUE DISPOSITIF DE DISSIPATION DE CHALEUR

Publication

EP 3867949 A1 20210825 (DE)

Application

EP 19789603 A 20191008

Priority

- DE 102018217607 A 20181015
- EP 2019077255 W 20191008

Abstract (en)

[origin: WO2020078778A1] A semiconductor component arrangement (1) is specified that has at least one semiconductor component (3) having a first electrical connection (21) and at least one further electrical connection (22, 23, 24), a printed circuit board (5) and a prefabricated metal block group. The metal block group has a first metal block (31) that is arranged between the semiconductor component (3) and the printed circuit board (5), that is connected to a first electrical connection (21) of the semiconductor component (3) by means of a solder joint (14) and that is connected to at least one conductor track (8) of the printed circuit board (5) by means of a further solder joint (14). The metal block group has at least one further metal block (32, 33, 34) that is interposed by means of a solder joint (14) between the further electrical connection (22, 23, 24) and the printed circuit board (5). The metal blocks (31, 32, 33, 34) of the prefabricated metal block group are arranged to the side of one another and have their lateral outer surfaces (25) partially or completely encased by an electrically insulating casing (26) that is common to them. Moreover, an electrical circuit, a method for fabricating the semiconductor component arrangement (1) and a heat dissipation device (2) are disclosed.

IPC 8 full level

H01L 23/498 (2006.01)

CPC (source: EP US)

H01L 23/3735 (2013.01 - US); **H01L 23/49838** (2013.01 - EP US); **H01L 23/49861** (2013.01 - EP); **H05K 1/0209** (2013.01 - EP); **H05K 3/341** (2013.01 - US); **H01L 23/3735** (2013.01 - EP); **H01L 23/49562** (2013.01 - EP US); **H01L 2924/181** (2013.01 - EP); **H05K 1/181** (2013.01 - EP US); **H05K 3/0061** (2013.01 - EP); **H05K 2201/10166** (2013.01 - US); **H05K 2201/10378** (2013.01 - US)

Citation (search report)

See references of WO 2020078778A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

DE 102018217607 A1 20200416; CN 112805828 A 20210514; EP 3867949 A1 20210825; US 2022115290 A1 20220414; WO 2020078778 A1 20200423

DOCDB simple family (application)

DE 102018217607 A 20181015; CN 201980068203 A 20191008; EP 19789603 A 20191008; EP 2019077255 W 20191008; US 201917285295 A 20191008