

Title (en)
CIRCUIT BOARD FOR A POWER SEMICONDUCTOR MODULE, POWER SEMICONDUCTOR MODULE, AND METHOD FOR PRODUCING A CIRCUIT BOARD AND A POWER SEMICONDUCTOR MODULE

Title (de)
LEITERPLATTE FÜR EIN LEISTUNGSHALBLEITERMODUL, LEISTUNGSHALBLEITERMODUL SOWIE VERFAHREN ZUR HERSTELLUNG EINER LEITERPLATTE UND EINES LEISTUNGSHALBLEITERMODULS

Title (fr)
CARTE DE CIRCUITS IMPRIMÉS POUR MODULE SEMI-CONDUCTEUR DE PUISSANCE, MODULE SEMI-CONDUCTEUR DE PUISSANCE ET PROCÉDÉ DE FABRICATION D'UNE CARTE DE CIRCUITS IMPRIMÉS ET D'UN MODULE SEMI-CONDUCTEUR DE PUISSANCE

Publication
EP 4353055 A1 20240417 (DE)

Application
EP 22735092 A 20220608

Priority
• DE 102021114658 A 20210608
• EP 2022065483 W 20220608

Abstract (en)
[origin: WO2022258656A1] The invention relates to a circuit board (1) for a power semiconductor module (13), comprising at least a top (2) and a bottom (3), wherein: at least one mounting surface (4) for a power semiconductor component (12) is provided on the top (2); at least one solder layer (8) for connecting at least one power semiconductor component (12) to the mounting surface (4) is disposed on the mounting surface (4), said solder layer being divided into regions (9), which are separated from each other by intermediate spaces (11); a plurality of thermal vias (5) is disposed in the circuit board (1), said thermal vias extending, in the region of the mounting surface (4), from the top (2) to the bottom (3) of the circuit board (2); each upper opening (6) of the thermal vias (5) is directly surrounded by respective regions (9) of the solder layer (8), and a lower opening (7) of the vias (5) is covered by a layer (10) of electrically insulating material.

IPC 8 full level
H05K 1/02 (2006.01); **H05K 3/00** (2006.01); **H05K 3/42** (2006.01)

CPC (source: EP)
H05K 1/0206 (2013.01); **H05K 3/0094** (2013.01); **H05K 3/421** (2013.01); **H05K 2201/0305** (2013.01); **H05K 2201/09509** (2013.01); **H05K 2201/09545** (2013.01); **H05K 2201/09572** (2013.01); **H05K 2201/09609** (2013.01); **H05K 2201/09627** (2013.01); **H05K 2201/0989** (2013.01); **H05K 2203/0415** (2013.01); **H05K 2203/042** (2013.01); **H05K 2203/0455** (2013.01); **H05K 2203/0465** (2013.01); **H05K 2203/0545** (2013.01); **H05K 2203/1394** (2013.01)

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

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
DE 102021114658 A1 20221208; CN 117426144 A 20240119; EP 4353055 A1 20240417; WO 2022258656 A1 20221215

DOCDB simple family (application)
DE 102021114658 A 20210608; CN 202280040855 A 20220608; EP 2022065483 W 20220608; EP 22735092 A 20220608