

Title (en)

METHOD FOR THE INTEGRATION OF POWER CHIPS AND BUS-BARS FORMING HEAT SINKS

Title (de)

VERFAHREN ZUR INTEGRATION VON LEISTUNGSCHIPS UND STROMSCHIENEN ZUR HERSTELLUNG VON KÜHLKÖRPERN

Title (fr)

PROCÉDÉ D'INTÉGRATION DE PUCES DE PUISSANCE ET DE BUS BARRES FORMANT DISSIPATEURS THERMIQUES

Publication

EP 3555916 A2 20191023 (FR)

Application

EP 17817810 A 20171206

Priority

- FR 1662804 A 20161219
- FR 2017053408 W 20171206

Abstract (en)

[origin: WO2018115625A2] The method comprises: 1) producing a preform (EB1) integrating at least one electronic chip (MT, MD) included between insulating and/or conductive laminated internal layers; 2) mechanically securing metal bus-bar segments (BB1, BB2, BB3) at given spaced-apart positions on opposing upper and lower faces of the preform, using dielectric portions of resin prepreg (PP1, PP2, PP3); and 3) for each of the upper and lower opposing faces, electrodepositing a metal layer (ME) in order to interconnect bus-bar segments secured to the face in question and an electrode of the electronic chip, thereby forming an electronic power circuit comprising bus-bars forming heat sinks (BBH, BBL).

IPC 8 full level

H01L 23/538 (2006.01); **H01L 23/473** (2006.01); **H01L 25/11** (2006.01)

CPC (source: EP US)

H01L 23/373 (2013.01 - US); **H01L 23/473** (2013.01 - EP US); **H01L 23/49838** (2013.01 - US); **H01L 23/5389** (2013.01 - EP US); **H01L 25/072** (2013.01 - EP); **H01L 25/117** (2013.01 - US); **H01L 25/18** (2013.01 - US); **H01L 24/25** (2013.01 - US); **H01L 24/82** (2013.01 - US); **H01L 25/072** (2013.01 - US); **H01L 2224/2518** (2013.01 - US)

Citation (search report)

See references of WO 2018115625A2

Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

FR 3060846 A1 20180622; **FR 3060846 B1 20190524**; CN 110268520 A 20190920; CN 110268520 B 20230407; EP 3555916 A2 20191023; JP 2020515035 A 20200521; US 10804183 B2 20201013; US 2019311972 A1 20191010; WO 2018115625 A2 20180628; WO 2018115625 A3 20180816

DOCDB simple family (application)

FR 1662804 A 20161219; CN 201780078921 A 20171206; EP 17817810 A 20171206; FR 2017053408 W 20171206; JP 2019533043 A 20171206; US 201716470516 A 20171206