

Title (en)

ELECTRONICS MODULE AND METHOD FOR PRODUCING AN ELECTRONICS MODULE

Title (de)

ELEKTRONIKMODUL UND VERFAHREN ZUR HERSTELLUNG EINES ELEKTRONIKMODULS

Title (fr)

MODULE ÉLECTRONIQUE ET PROCÉDÉ DE FABRICATION D'UN MODULE ÉLECTRONIQUE

Publication

EP 4094288 A1 20221130 (DE)

Application

EP 21712423 A 20210308

Priority

- DE 102020106521 A 20200310
- EP 2021055760 W 20210308

Abstract (en)

[origin: WO2021180639A1] Described is an electronics module (100), more particularly a power electronics module, comprising - a metal-ceramic substrate (1) which serves as a carrier and has a ceramic element (10) and a primary component metallisation (21) and preferably a cooling part metallisation (20), - an insulation layer (40) which is directly or indirectly connected to the primary component metallisation (21) and - a secondary component metallisation (22) which is connected to the side of the insulation layer (40) facing away from the metal-ceramic substrate (1), wherein the ceramic element (10) is a first size (L1, D1) and the insulation layer (40) is a second size (L2, D2) and wherein, to form an island-like insulation layer (40) on the primary component metallisation (21), a ratio of the second size (L2, D2) to the first size (L1, D1) has a value that is less than 0.8, preferably less than 0.6 and particularly preferably less than 0.4.

IPC 8 full level

H01L 23/373 (2006.01); **H01L 23/498** (2006.01); **H01L 23/538** (2006.01); **H05K 1/02** (2006.01)

CPC (source: EP KR US)

H01L 21/4846 (2013.01 - KR); **H01L 21/4882** (2013.01 - KR); **H01L 23/3735** (2013.01 - EP KR); **H01L 23/3736** (2013.01 - KR);
H01L 23/49833 (2013.01 - EP); **H01L 23/49838** (2013.01 - KR); **H01L 23/49894** (2013.01 - KR); **H01L 23/5385** (2013.01 - EP);
H01L 24/47 (2013.01 - KR); **H01L 25/072** (2013.01 - EP KR); **H01L 25/50** (2013.01 - EP KR); **H05K 1/0203** (2013.01 - EP);
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H05K 1/181 (2013.01 - KR US); **H05K 1/183** (2013.01 - US); **H05K 3/429** (2013.01 - US); **H01L 25/18** (2013.01 - EP);
H01L 2224/32225 (2013.01 - EP); **H01L 2224/73265** (2013.01 - EP); **H01L 2224/83101** (2013.01 - EP); **H05K 1/115** (2013.01 - EP);
H05K 3/0029 (2013.01 - EP); **H05K 3/0061** (2013.01 - EP); **H05K 3/24** (2013.01 - EP); **H05K 3/403** (2013.01 - EP); **H05K 3/421** (2013.01 - EP);
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Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

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KR 20220139385 A 20221014; US 12035477 B2 20240709; US 2023094926 A1 20230330; WO 2021180639 A1 20210916

DOCDB simple family (application)

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