

Title (en)

LED arrangement with cooling means and vehicle headlight

Title (de)

Leuchtdiodenanordnung mit einer Kühlvorrichtung und Kfz-Scheinwerfer

Title (fr)

Arrangement de diodes électroluminescentes avec des moyens de refroidissement et projecteur pour véhicule automobile

Publication

EP 1643188 B1 20111207 (DE)

Application

EP 05016991 A 20050804

Priority

DE 102004047324 A 20040929

Abstract (en)

[origin: EP1643188A1] The light source (11) consisting of a diode chip is supported on a high heat conducting heat sink (14) which connects to a more massive heat sink (17) by convection (15) or a fan (19) in a housing (16) formed from the vehicle body. A lens (18) concentrates and directs the light rays.

IPC 8 full level

F21V 29/00 (2006.01); **H01L 33/48** (2010.01); **F21K 99/00** (2016.01); **G02B 6/00** (2006.01); **H01L 33/58** (2010.01); **H01L 33/64** (2010.01)

CPC (source: EP US)

F21S 41/143 (2017.12 - EP US); **F21S 45/435** (2017.12 - EP US); **F21S 45/47** (2017.12 - EP US); **F21S 45/48** (2017.12 - EP US); **F21S 45/49** (2017.12 - US); **F21S 45/60** (2017.12 - EP US); **F21V 5/04** (2013.01 - EP US); **F21V 29/51** (2015.01 - EP US); **F21V 29/67** (2015.01 - EP US); **F21V 29/71** (2015.01 - EP US); **F21V 29/89** (2015.01 - EP US); **F21S 45/46** (2017.12 - EP US); **F21Y 2115/10** (2016.07 - EP US); **H01L 2924/0002** (2013.01 - EP US)

Citation (examination)

FR 2701756 A1 19940826 - PEUGEOT [FR], et al

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WO2009065548A1; DE102006010977A1; DE102006036058A1; DE102011120123A1; FR3046660A1; DE102006033750A1; DE102011080489B4; DE102008028790A1; DE102008008599A1; DE102007017113A1; DE102009019227A1; CN102452351A; DE102007062388A1; EP2138759A1; EP2157371A3; DE102007004702A1; DE102011011700A1; DE102011001867A1; EP3789661A1; CN112443805A; EP1914472A1; EP2722579A1; DE102012219162A1; DE102007043961A1; US7862216B2; US8564007B2; WO2007087791A1; WO2008056308A1; WO2006086953A1; WO2012113755A1; WO2009089903A1; US8342728B2; US9453638B2; DE102011004746B4; US8118462B2

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