

Title (en)
SEMICONDUCTOR LASER DEVICE

Title (de)
HALBLEITERLASERVORRICHTUNG

Title (fr)
DISPOSITIF LASER À SEMI-CONDUCTEUR

Publication
EP 2220731 A1 20100825 (DE)

Application
EP 08864364 A 20081119

Priority
• DE 2008001910 W 20081119
• DE 102007062044 A 20071221

Abstract (en)
[origin: WO2009079968A1] The invention relates to a semiconductor laser device comprising a laser bar (2), a flexible conductor support (10), a support element (3) made of a metal or a metal alloy, and a heat sink (4) that is arranged between the support element (3) and the laser bar (2). The laser bar (2) is electrically contacted by means of the flexible conductor support (10). The support element (3) has a minimum thickness of 2 mm. The invention further relates to a method for producing said semiconductor laser device. In said method, the laser bar (2) is soldered to the heat sink (4) by means of a hard solder layer (30), while the heat sink (4) is soldered to the support element (3) by means of another hard solder layer (31) in a synchronous soldering process.

IPC 8 full level
H01S 5/02 (2006.01); **H01S 5/022** (2006.01); **H01S 5/024** (2006.01)

CPC (source: EP KR US)
H01S 5/005 (2013.01 - KR); **H01S 5/02208** (2013.01 - EP KR US); **H01S 5/02469** (2013.01 - EP KR US); **H01S 5/06825** (2013.01 - KR); **H01S 5/4031** (2013.01 - EP KR US); **H01L 2224/45015** (2013.01 - EP US); **H01L 2224/45144** (2013.01 - EP KR US); **H01L 2224/45147** (2013.01 - EP KR US); **H01L 2224/48091** (2013.01 - EP KR US); **H01L 2224/4903** (2013.01 - EP US); **H01L 2224/49175** (2013.01 - EP KR US); **H01S 5/005** (2013.01 - EP US); **H01S 5/02325** (2021.01 - EP US); **H01S 5/02345** (2021.01 - EP US); **H01S 5/0237** (2021.01 - EP US); **H01S 5/06825** (2013.01 - EP US)

Citation (search report)
See references of WO 2009079968A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA MK RS

DOCDB simple family (publication)
DE 102007062044 A1 20090625; EP 2220731 A1 20100825; KR 20100102661 A 20100924; US 2011032962 A1 20110210; US 8411715 B2 20130402; WO 2009079968 A1 20090702

DOCDB simple family (application)
DE 102007062044 A 20071221; DE 2008001910 W 20081119; EP 08864364 A 20081119; KR 20107015695 A 20081119; US 80967708 A 20081119