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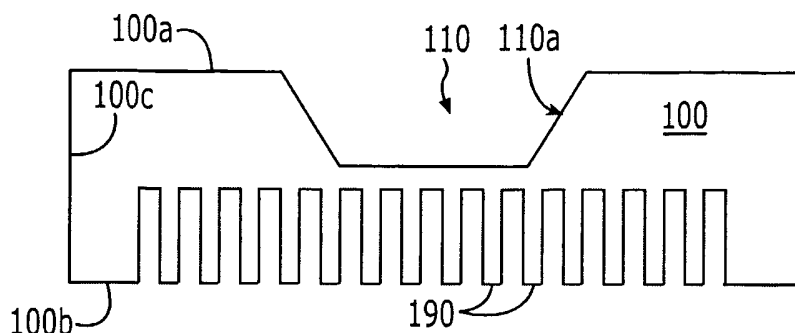
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(54) Title: SOLID METAL BLOCK SEMICONDUCTOR LIGHT EMITTING DEVICE MOUNTING SUBSTRATES AND PACKAGES INCLUDING CAVITIES AND HEAT SINKS, AND METHODS OF PACKAGING SAME



(57) Abstract: A mounting substrate for a semiconductor light emitting device (150) includes a solid metal block (100) having first and second opposing metal faces (100a, 100b). The first metal face (100a) includes a cavity (110) that is configured to mount at least one semiconductor light emitting device (150) therein, and to reflect light that is emitted by at least one semiconductor light emitting device (150) that is mounted therein away from the cavity (110). The

second metal face (100b) includes heat sink fins (190) therein. One or more semiconductor light emitting devices are mounted in the cavity (110). Reflective coatings (132a, 132b), conductive traces (130a, 130b), insulating layers (120), pedestals, through holes, lenses, flexible films, optical elements, phosphor, integrated circuits and/or optical coupling media also may be provided in the package. Related packaging methods also may be provided.

## INTERNATIONAL SEARCH REPORT

International application No

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## A. CLASSIFICATION OF SUBJECT MATTER

INV. H01L33/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

H01L H01S

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, IBM-TDB, INSPEC, COMPENDEX, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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