



US007279346B2

(12) **United States Patent**
Andrews et al.

(10) **Patent No.:** **US 7,279,346 B2**
(45) **Date of Patent:** **Oct. 9, 2007**

(54) **METHOD FOR PACKAGING A LIGHT EMITTING DEVICE BY ONE DISPENSE THEN CURE STEP FOLLOWED BY ANOTHER** 5,027,168 A 6/1991 Edmond 357/17
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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 42 days.

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(21) Appl. No.: **11/044,126**

International Search Report and Written Opinion of the International Searching Authority for corresponding PCT application No. PCT/US2005/010034, mailed Feb. 22, 2006.

(22) Filed: **Jan. 27, 2005**

(Continued)

(65) **Prior Publication Data**

US 2005/0218421 A1 Oct. 6, 2005

Related U.S. Application Data

(60) Provisional application No. 60/557,924, filed on Mar. 31, 2004.

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(51) **Int. Cl.**
H01L 33/00 (2006.01)

(57) **ABSTRACT**

(52) **U.S. Cl.** **438/27; 257/E33.059**
(58) **Field of Classification Search** 438/26, 438/27, 29; 257/98, 100, E33.059
See application file for complete search history.

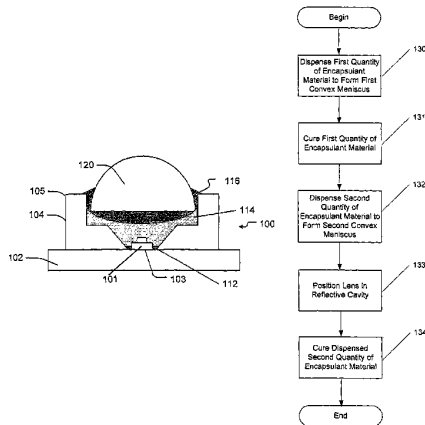
Methods of packaging a semiconductor light emitting device positioned in a reflective cavity are provided. A first quantity of encapsulant material is dispensed into the reflective cavity including the light emitting device therein and the first quantity of encapsulant in the reflective cavity is cured. A second quantity of encapsulant material is dispensed onto the cured first quantity of encapsulant material. A lens is positioned in the reflective cavity on the dispensed second quantity of encapsulant material. The dispensed second quantity of encapsulant material is cured to attach the lens in the reflective cavity.

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18 Claims, 10 Drawing Sheets



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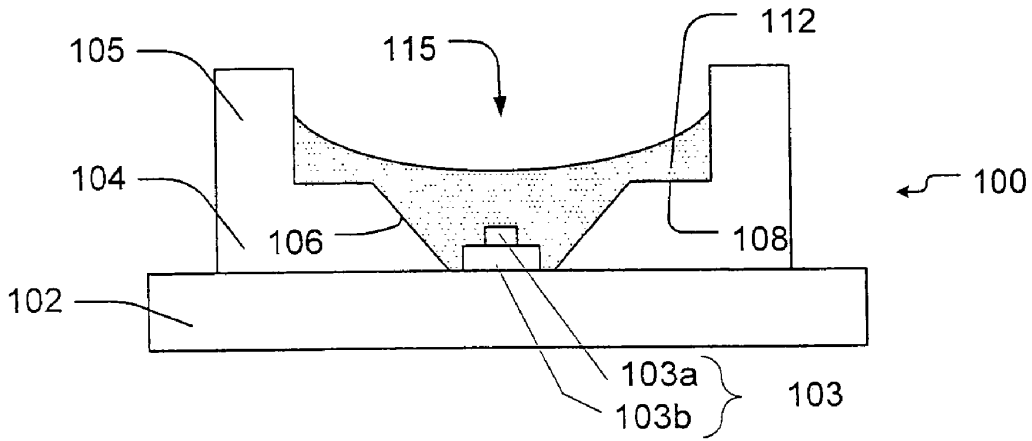


FIG. 1

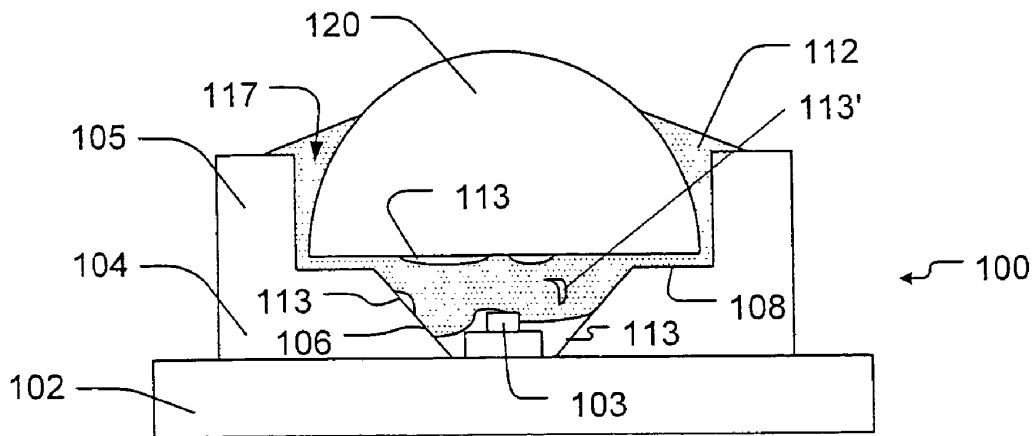


FIG. 2

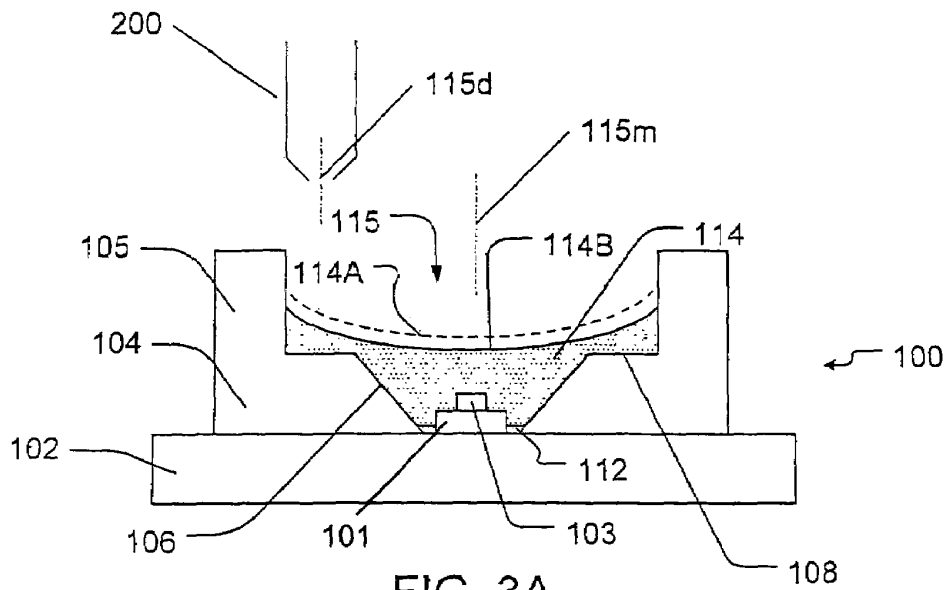


FIG. 3A

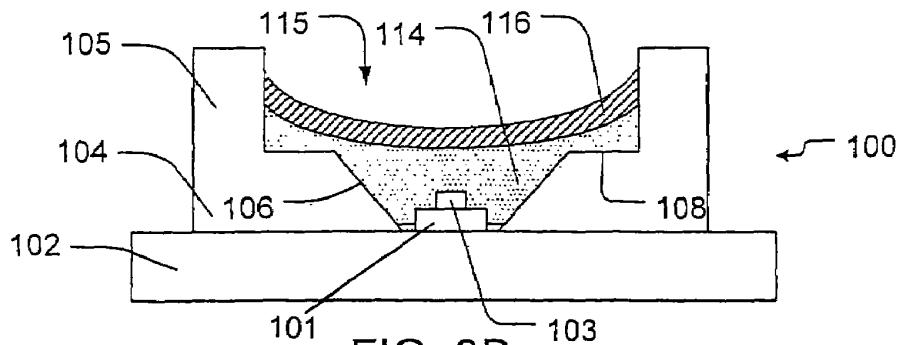


FIG. 3B

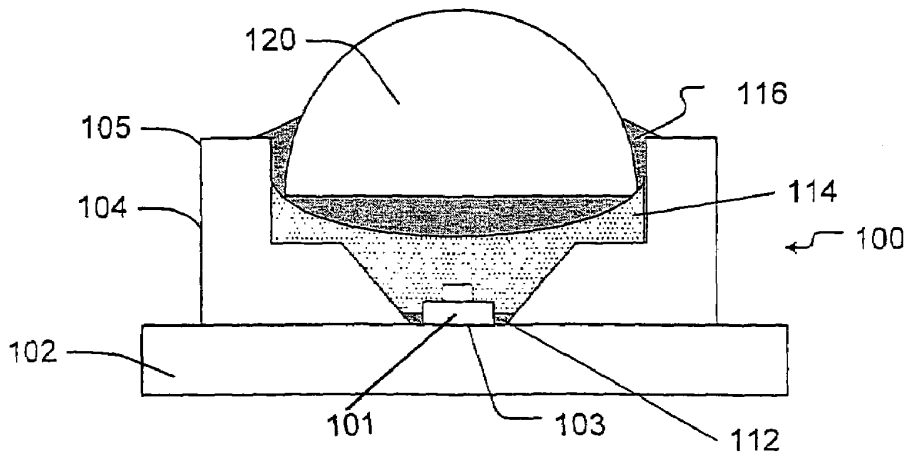


FIG. 3C

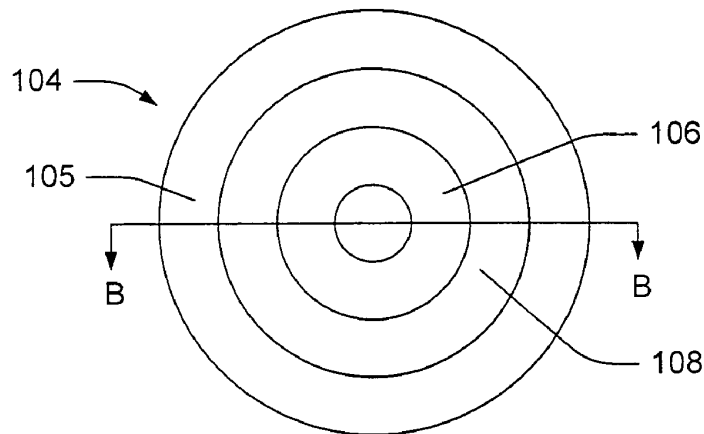


FIG. 4A

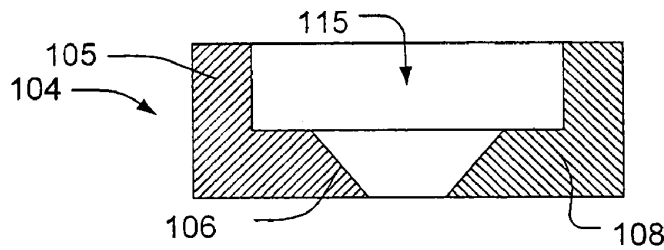


FIG. 4B

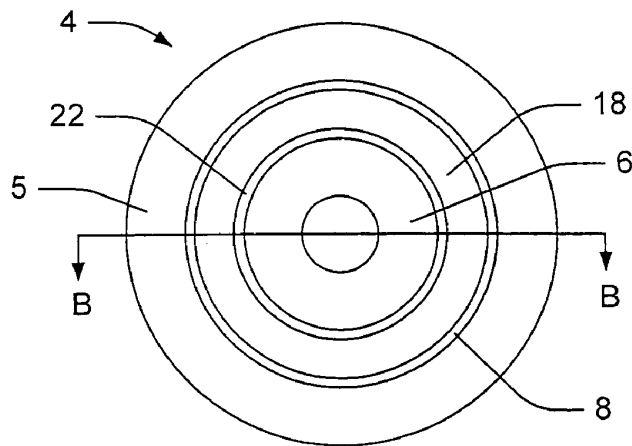


FIG. 5A

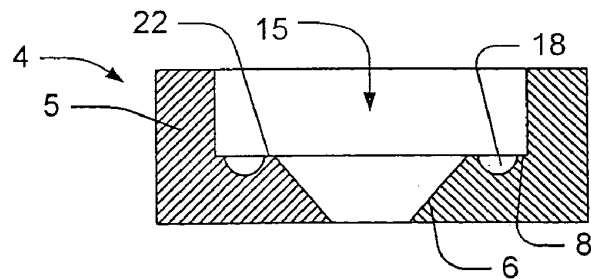


FIG. 5B

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