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Nii et al.

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(54) **LIGHT EMITTING DEVICE**

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F21V 3/00 (2006.01)

(52) **U.S. Cl.** **362/311.03**; 362/249.02; 362/255; 362/256; 362/267; 362/311.02; 362/311.04; 257/98; 257/99; 257/100

(58) **Field of Classification Search** 362/267, 362/311.02, 231, 249.02, 255, 256, 293, 362/311.03, 311.04; 313/502; 427/64; 257/98, 257/99, 100

See application file for complete search history.

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(57) **ABSTRACT**

The present invention provides a light emitting device which has high reliability and long service life by suppressing the sealing resin from peeling off the inner edge of the opening of the recess of the housing.

The light emitting device of the present invention comprises a light emitting element having a pair of electrodes, a housing having a recess for accommodating the light emitting element, a first lead electrode and a second lead electrode which are exposed on the bottom of the recess, electrically conductive members for electrically connecting the pair of electrodes of the light emitting element to the first lead electrode and to the second lead electrode respectively, a transparent sealing material which fills in the recess and granular additives contained in the sealing material, wherein the inner wall surface of the recess has a light blocking section that blocks light emitted by the light emitting device toward the inner edge of the opening of the recess, the quantity of the granular additives contained in the sealing material is controlled to such a level that enhances scattering of light in a first region located below the light blocking section and to such a level that suppresses scattering of light in a second region located above the light blocking section.

19 Claims, 14 Drawing Sheets

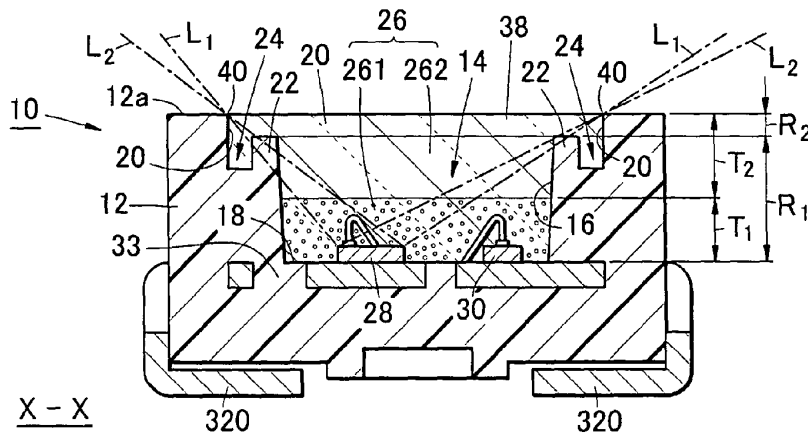


Fig. 1A

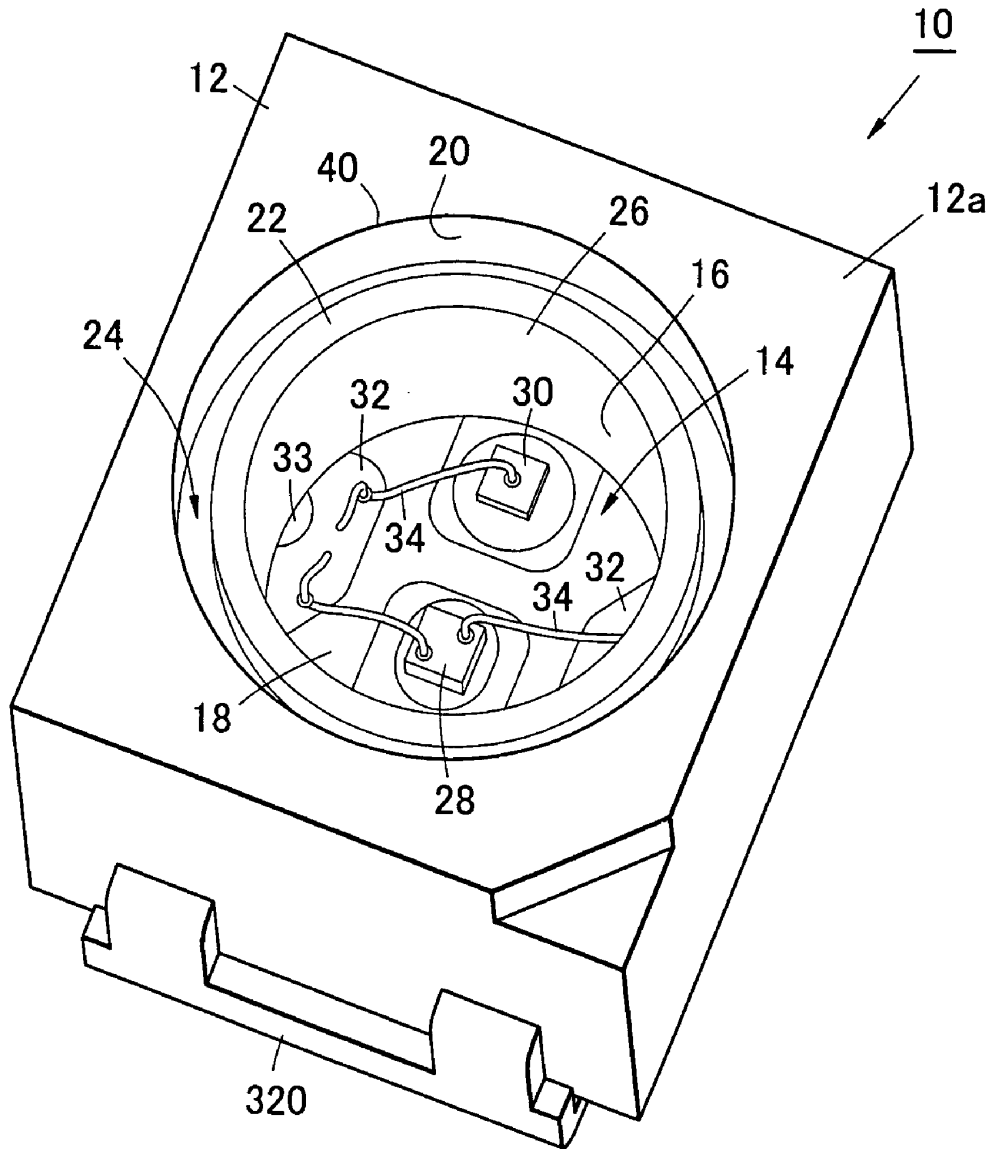


Fig. 1B

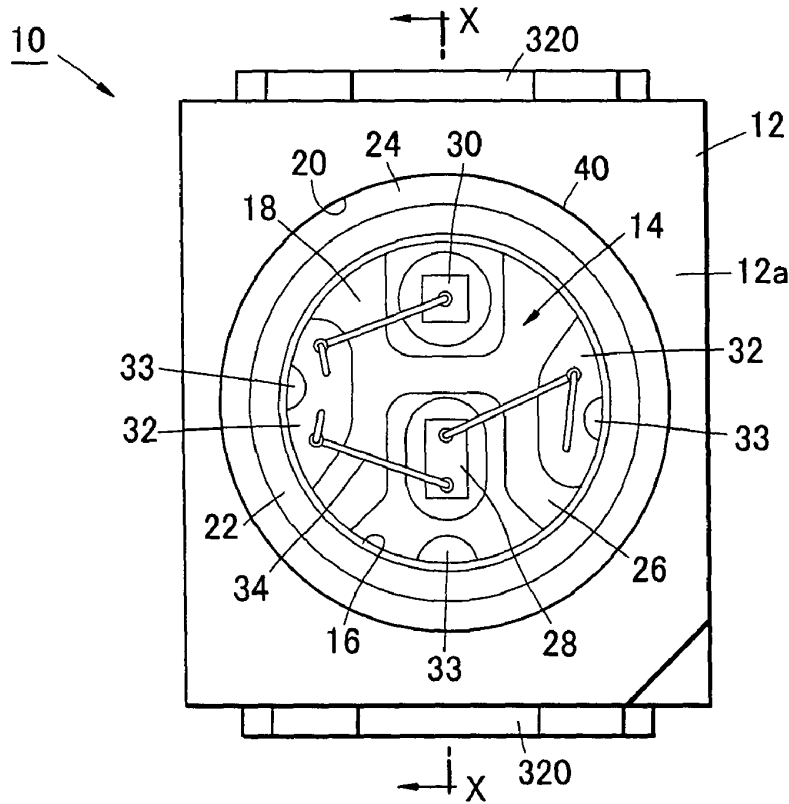


Fig. 1C

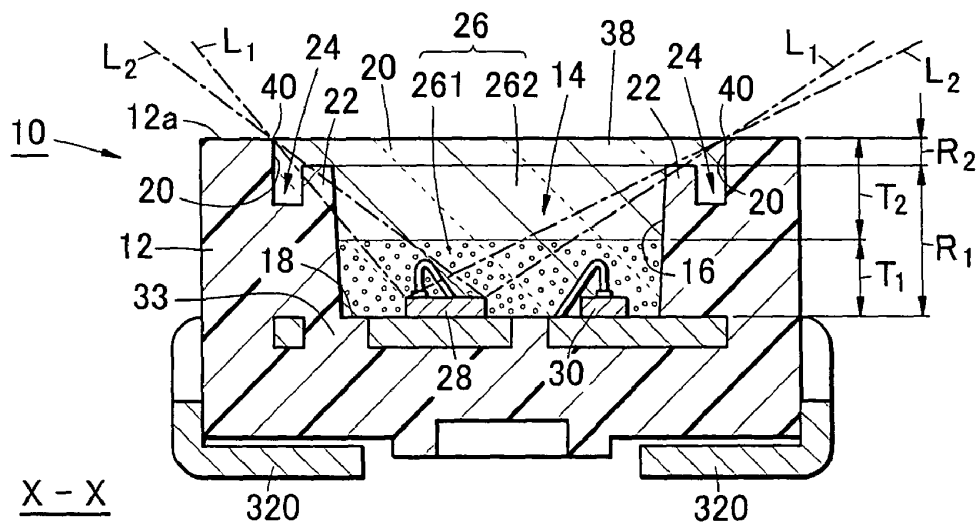


Fig. 2A

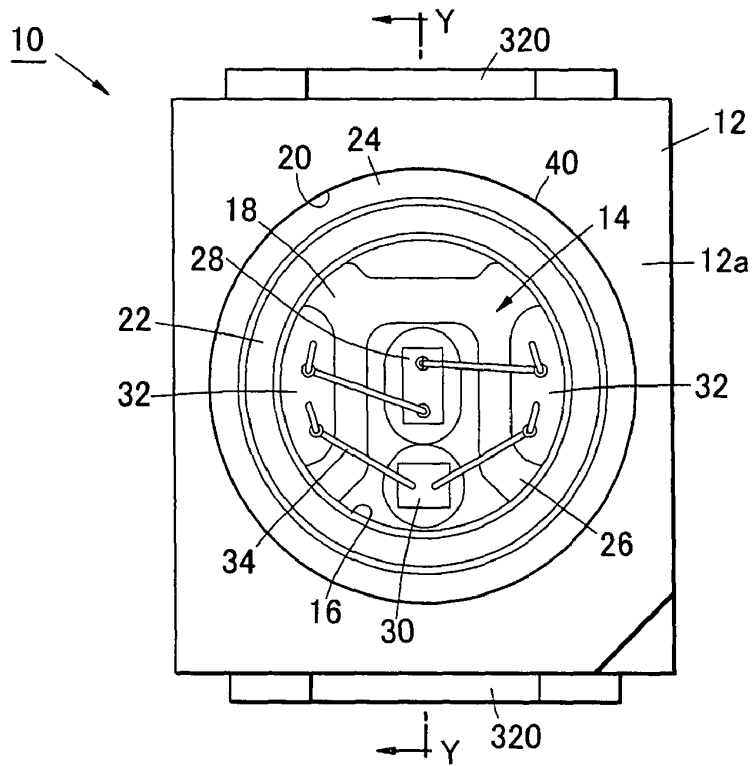


Fig. 2B

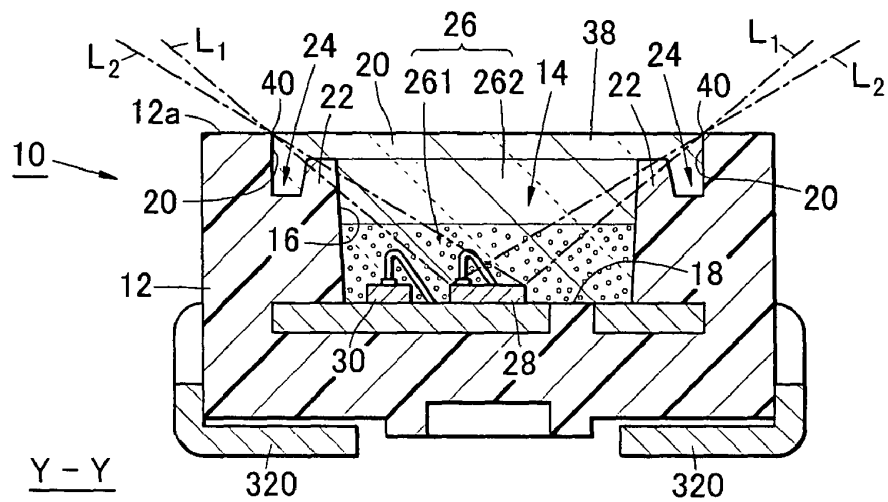
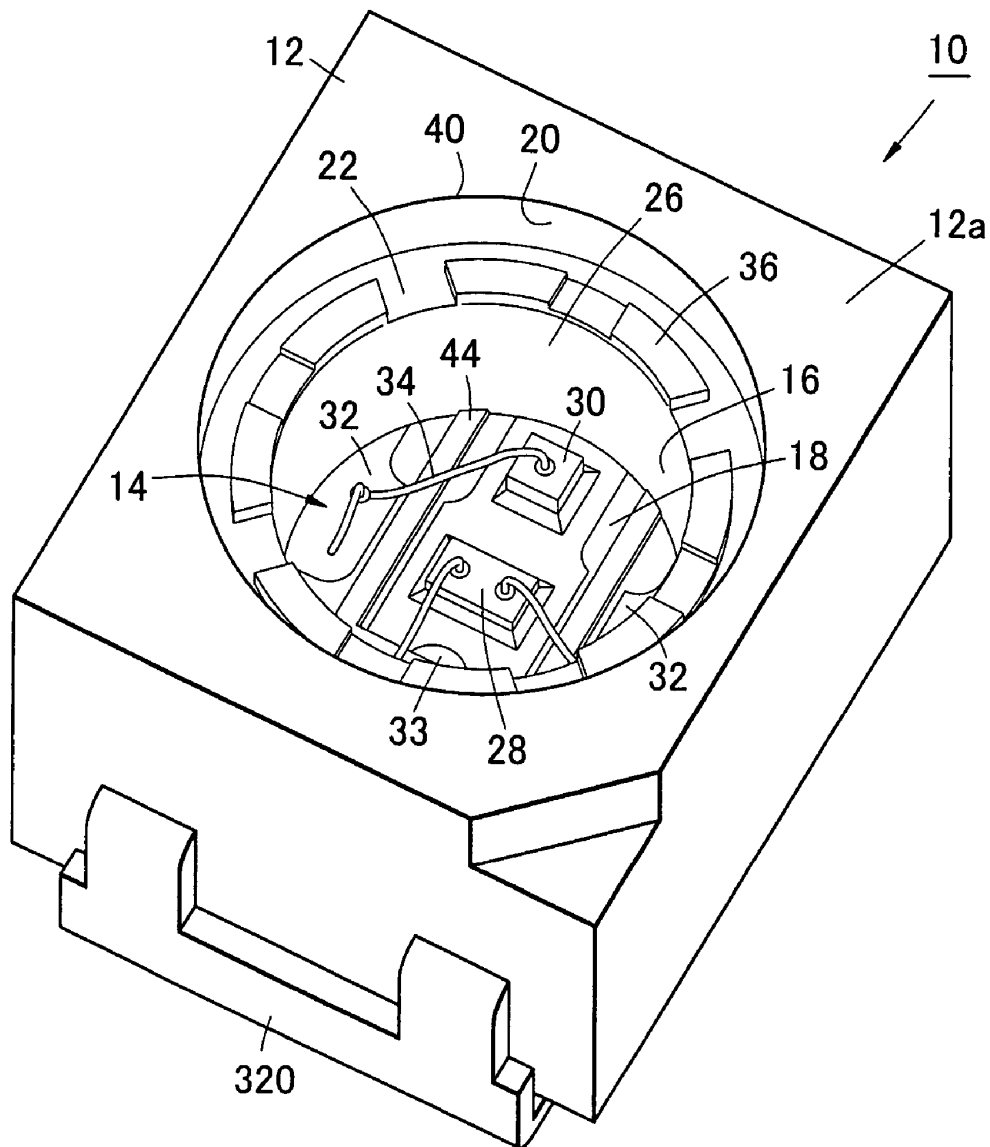


Fig. 3A



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