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(54) **SMALL-SIZED VERTICAL LIGHT EMITTING DIODE CHIP WITH HIGH ENERGY EFFICIENCY**

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(57) **ABSTRACT**

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The invention is a small-sized vertical light emitting diode chip with high energy efficiency, wherein a PN junction structure is arranged on a light-emitting region platform of an interface structure; a highly reflective metal layer is arranged under the light-emitting region platform; the interface structure is provided with a P-type ohmic contact area under an outwardly extending platform adjacent to the light-emitting region platform; an insulating layer is formed on the outwardly extending platform; an N-type ohmic contact electrode is in ohmic contact with the PN junction structure and covers the border covering region at a position opposite to the outwardly extending platform; the current conduction is achieved diagonally on the opposite sides by locally diagonally symmetric geometric positioning of the N-type ohmic contact electrode and the P-type ohmic contact area.

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