ABSTRACT

LIGHT-EMITTING DEVICE

A light-emitting device according to the present invention is equipped with: a GaN substrate 1; an n-type $Al_xGa_{1-x}N$ layer 3 on a first main surface side of the GaN substrate 1; a p-type $Al_xGa_{1-x}N$ layer 5 positioned further away from the GaN substrate 1 than the n-type $Al_xGa_{1-x}N$ layer 3; and a multi-quantum well (MQW) 4 positioned between the n-type $Al_xGa_{1-x}N$ layer 3 and the p-type $Al_xGa_{1-x}N$ layer 5. In the light-emitting device, the p-type $Al_xGa_{1-x}N$ layer 5 side is down-mounted and light is emitted from a second main surface 1a, which is the main surface opposite from the first main surface of the GaN substrate 1. The second main surface 1a of the GaN substrate 1 includes a region on which cavities and projections are formed. Also, the light-emitting device includes an n-electrode 11 formed on the second main surface 1a of the GaN substrate 1 and a protective film 30 formed to cover the side wall of the n-electrode 11.