

ABSTRACT

SEMICONDUCTOR DEVICE, SEMICONDUCTOR LAYER AND
PRODUCTION METHOD THEREOF

A semiconductor device is prepared by the use of a vapor phase method and is provided with a semiconductor layer composed of boron phosphide (BP) having a band gap at room temperature of not less than 2.8 eV and not more than 3.4 eV or a boron phosphide (BP)-base mixed crystal which contains the boron phosphide (BP) and which is represented by the formula: $B_{\alpha}Al_{\beta}Ga_{\gamma}In_{1-\alpha-\beta-\gamma}P_{\delta}As_{\epsilon}N_{1-\delta-\epsilon}$ ($0 < \alpha < 1$, $0 = \beta < 1$, $0 = \gamma < 1$, $0 < \alpha + \beta + \gamma = 1$, $0 < \delta < 1$, $0 = \epsilon < 1$, $0 < \delta + \epsilon = 1$).



162162



G00002