MANUFACTURING METHOD OF SOI SUBSTRATE AND MANUFACTURING METHOD OF SEMICONDUCTOR DEVICE

ABSTRACT OF THE DISCLOSURE

When the single crystal semiconductor layer is melted, the outward diffusion of oxygen is promoted. Specifically, an SOI substrate is formed in such a manner that an SOI structure having a bonding layer including oxygen provided over a base substrate and a single crystal semiconductor layer provided over the bonding layer including oxygen is formed, and part of the single crystal semiconductor layer is melted by irradiation with a laser beam in a state that the base substrate is heated at a temperature of higher than or equal to 500 °C and lower than a melting point of the base substrate.

Figure 4B