METHOD OF MANUFACTURING A SEMICONDUCTOR DEVICE

ABSTRACT OF THE DISCLOSURE

A method of performing irradiation of laser light is given as a method of crystallizing a semiconductor film. However, if laser light is irradiated to a semiconductor film, the semiconductor film is instantaneously melted and expands locally. The temperature gradient between a substrate and the semiconductor film is precipitous, distortions may develop in the semiconductor film. Thus, the film quality of the crystalline semiconductor film obtained will drop in some cases. With the present invention, distortions of the semiconductor film are reduced by heating the semiconductor film using a heat treatment process after performing crystallization of the semiconductor film using laser light. Compared to the localized heating due to the irradiation of laser light, the heat treatment process is performed over the entire substrate and semiconductor film. Therefore, it is possible to reduce distortions formed in the semiconductor film and to increase the physical properties of the semiconductor film.