ABSTRACT

SOI WAFER AND MANUFACTURING METHOD THEREOF

An SOI wafer which does not generate slip dislocation even if laser annealing is performed for no more than 0.1 seconds at a maximum temperature of 1200°C or more is provided.

This wafer is an SOI wafer used for a process of manufacturing a semiconductor device, in which laser annealing is conducted for no more than 0.1 seconds at a maximum temperature of 1200°C or more, which includes an active layer, a support layer of a monocrystaline silicon, and an insulated oxide film layer between the active layer and the support layer, wherein light-scattering defect density measured by a 90° light scattering method at the depth region of 260 μm toward the support layer side from an interface between the insulated oxide film layer and the support layer is $2\times10^{8}/cm^{3}$ or less.

(Selected Figure: FIG.5)