

ABSTRACT

A semiconductor device is provided. The semiconductor device includes a substrate which includes a cell region and a core region, a boundary element separation film which is placed inside the substrate, and separates the cell region and the core region, and a bit line which is placed on the cell region and the boundary element separation film and extends along a first direction, in which the boundary element separation film includes a first region and a second region, a height of an upper side of the first region of the boundary element separation film is different from a height of an upper side of the second region of the boundary element separation film, on a basis of a bottom side of the boundary element separation film, and the bit line is placed over the first region and the second region of the boundary element separation film.

FIG. 4