ABSTRACT

A semiconductor device may include a plurality of first channel structures on a substrate, a plurality of second channel structures on the substrate, a first impurity region structure between the first channel structures, a second impurity region structure between second channel structures, a third impurity region structure between the first and second channel structures, and a plurality of gate structures disposed between the first to third impurity region structures, respectively. Each of the first channel structure may have a first width, and each of the second channel structure may have a second width less than the first width. The first impurity region structure may have a first volume, and the second impurity region structure may have a second volume smaller than the first volume. The third impurity region structure may have a third volume smaller than the first volume and greater than the second volume.

FIG. 1