ABSTRACT

VERTICAL SOURCE/DRAIN CONTACT SEMICONDUCTOR

A semiconductor device [10] and manufacturing process therefor is provided in which angled dopant implantation [30] is followed by the formation of vertical trenches [46] [48] in the silicon on insulator substrate [16] adjacent to the sides of the semiconductor gate [22]. A second dopant is implanted [30] in the exposed the source/drain junctions [52] [54] in the substrate [16]. Contacts [70] [74] having inwardly curved cross-sectional widths in the semiconductor substrate [16] are then formed which connect vertically to the exposed source/drain junctions [52] [54] either directly or through salicided contact areas [56] [58].

(FIGURE 1 IS SUGGESTED FOR PUBLICATION)




