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Abstract

Method for the production of a contact hole to a doped region.

A doped region (2) is produced in a substrate (1) in such a way that it is bounded by insulation regions (5) at least on the surface of the substrate (1). An undoped silicon layer (6) is deposited over the whole area. A doped zone (61), which reliably overlaps the region for the contact hole (10), is selectively produced in the silicon layer (6). Undoped parts of the silicon layer (6) are removed selectively with respect to the doped zones (61). An insulation layer (9) is produced over the whole area, in which layer a contact hole (10) is opened by means of anisotropic etching selectively with respect to the doped zone (61) of the silicon layer (6). The method is suitable for the production of space-saving bit line contacts in DRAMs having p-channel MOSFETs in the cell field.

Figure 4