

MIM CAPACITOR STRUCTURE AND METHOD OF MANUFACTURE

ABSTRACT OF THE DISCLOSURE

A metal-insulator-metal (MIM) capacitor structure and method of manufacturing thereof. A plurality of MIM capacitor patterns is formed in two or more insulating
5 layers. The insulating layers may comprise a via layer and a metallization layer of a semiconductor device. A top portion of the top insulating layer is recessed in a region between at least two adjacent MIM capacitor patterns. When the top plate material of the MIM capacitors is deposited, the top plate material fills the recessed area of the top insulating layer between the adjacent MIM capacitor pattern, forming a connecting
10 region that couples together the top plates of the adjacent MIM capacitors. A portion of the MIM capacitor bottom electrode may be formed in a first metallization layer of the semiconductor device.

Fig. 3M



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