

Title (en)

METHOD FOR FORMING A SEMICONDUCTOR DEVICE WITH SELF-ALIGNMENT

Publication

EP 0000545 B1 19810211 (DE)

Application

EP 78100443 A 19780719

Priority

US 82099177 A 19770801

Abstract (en)

[origin: US4128439A] A method is provided for making a field effect transistor which comprises forming a layer of an ion beam masking material on the surface of a semiconductor body of one-type conductivity having at least two adjacent apertures with at least a portion of the masking layer between these apertures and in contact with the semiconductor body surface being an electrically insulative material. Then, a beam of ions of opposite-type conductivity is directed at the mask body at an energy and dosage sufficient to form two buried regions of opposite-type conductivity fully enclosed within said one-type body respectively beneath these two apertures. Finally, sufficient heat is applied so that the two buried regions diffuse upward until they extend respectively to the surface of the semiconductor body beneath the two apertures; the masking material must have a melting point above the temperature of the diffusion step.

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IPC 8 full level

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