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(71) Applicant *(for all designated States except US)*: **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventor; and

(75) Inventor/Applicant *(for US only)*: **VAN NOORT, Wibo, D.** [NL/BE]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(74) Agents: **ELEVELD, Koop, J.** et al.; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

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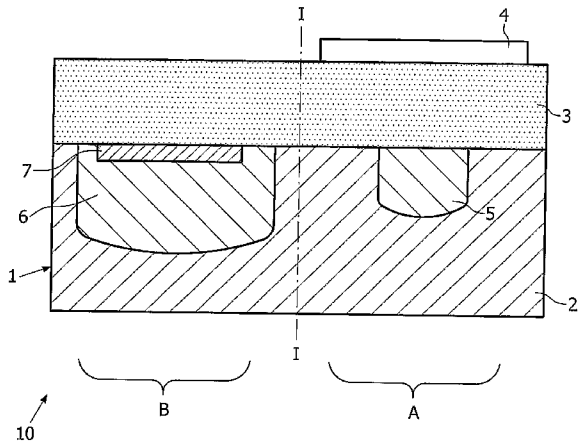
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(54) Title: SEMICONDUCTOR DEVICE AND METHOD OF MANUFACTURING SUCH A DEVICE



(57) Abstract: The invention relates to a semiconductor device (10) with a semiconductor body (1) comprising a high-ohmic semiconductor substrate (2) which is covered with a dielectric layer (3) containing charges, on which dielectric layer one or more passive electronic components (4) comprising conductor tracks (4) are present, and at the location of the passive elements (4) a semiconductor region (5) is present at the interface between the semiconductor substrate (2) and the dielectric layer (3, 4), a first conductivity-type conducting channel induced in the semiconductor substrate (2) by the charges being interrupted by, and at the location of, the semiconductor region (5). According to the invention, the semiconductor region (5) is monocrystalline and of a second conductivity type, opposite to the first conductivity type. In this way the charge of an induced channel is locally compensated by the charge of the semiconductor regions (5). The device (10) has a very low high-frequency power loss, because the inversion channel is interrupted at the location of the semiconductor region (5). The device (10) further allows for a higher thermal budget and thus for the integration of active semiconductor elements (8) into the semiconductor body (1). Preferably, the semiconductor region (5) comprises a large number of strip-shaped sub-regions (5A, 5B, 5C).

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