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SEMICONDUCTOR INTEGRATED CIRCUIT

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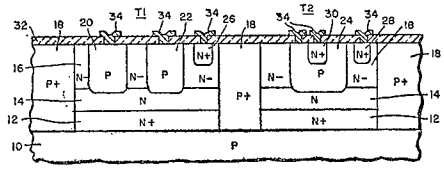

Three successive layers of semiconductive material of the same conductivity type with decreasing steps in resistivity are used in a new basic structure for the formation of integrated circuits including bipolar transistors whether of vertical or lateral configuration. The abruptly higher resistivity of the top layer provides higher current gain for lateral transistors and minimizes useless vertical injection. In both types of transistors the junction breakdown voltages are improved and inversion layers giving rise to undesired channel leakage currents are avoided.

April 29, 1969 HUNG CHANG LIN DEF. PUB.

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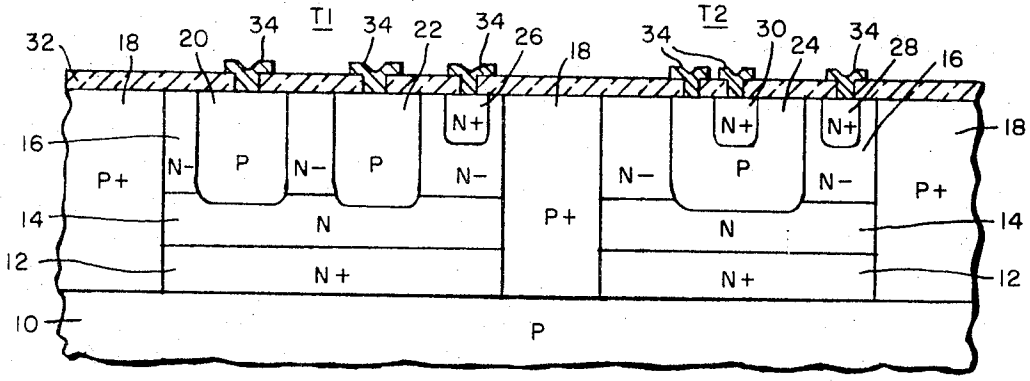
FIG. 1.



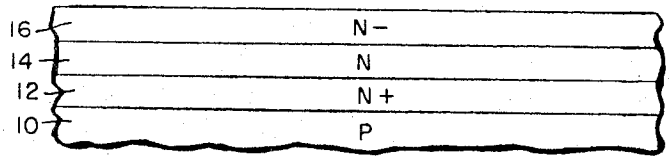


FIG. 2.

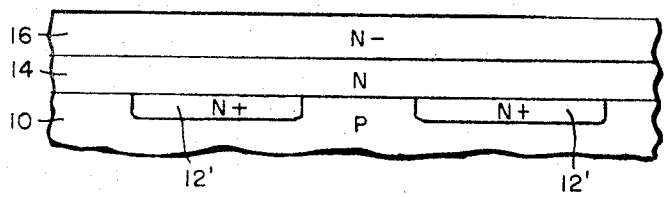


FIG. 3.

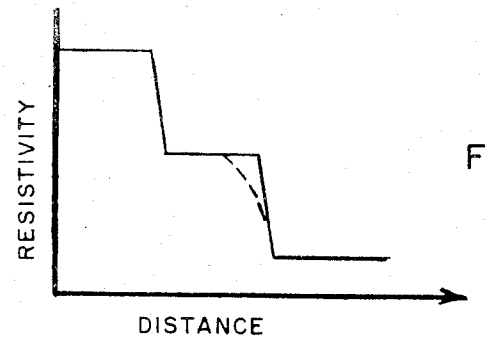


FIG. 4.

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