

DEFENSIVE PUBLICATION

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T892,019
SEMICONDUCTOR INTEGRATED CIRCUIT WITH
ISOLATED ELEMENTS AND POWER TRANSIS-
TOR UTILIZING SUBSTRATE FOR LOW COLLEC-
TOR RESISTANCE

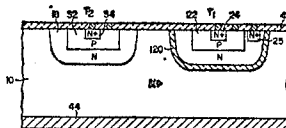
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1 Sheet Drawing. 8 Pages Specification



A substrate, preferably of low resistivity, can serve as a collector contact region of a power transistor as well as a support for other functional elements of an integrated circuit. An epitaxial layer on the surface of the substrate, of the same conductivity type but higher resistivity, contains other regions of functional elements. Isolation means such as PN junction forming regions or dielectric material, underlies and encloses those portions of the epitaxial layer to be isolated. Minimal collector resistance and increased power handling capability can be obtained with the power transistor structure without sacrificing isolation or complicating fabrication.

Nov. 30, 1971

E. A. SACK

T892,019

SEMICONDUCTOR INTEGRATED CIRCUIT WITH ISOLATED ELEMENTS
AND POWER TRANSISTOR UTILIZING SUBSTRATE FOR
LOW COLLECTOR RESISTANCE
Filed Jan. 27, 1969

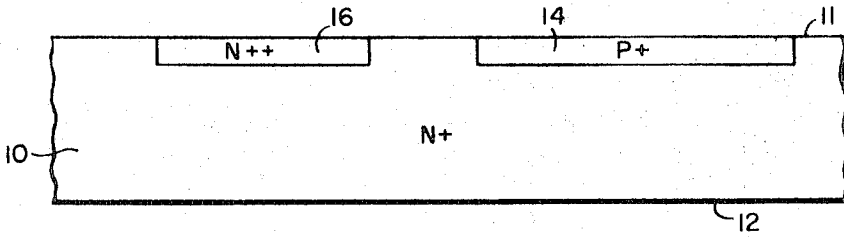


FIG. 1.

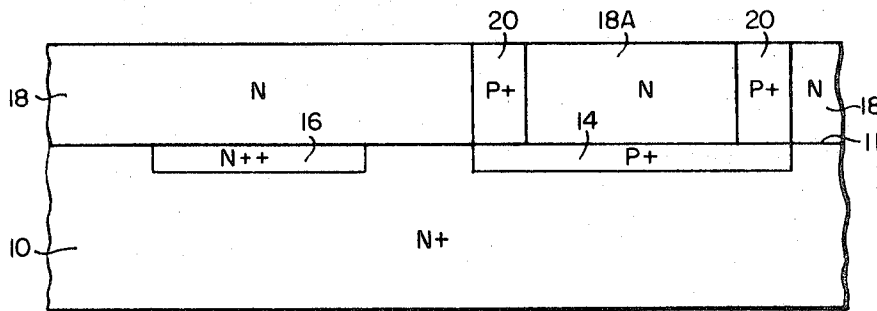


FIG. 2.

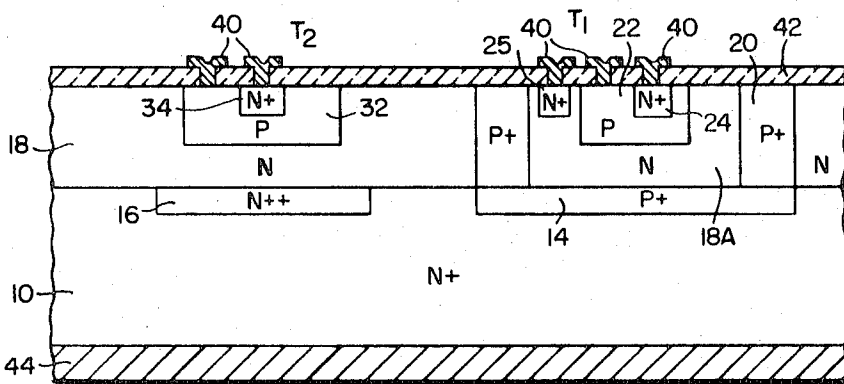


FIG. 3.

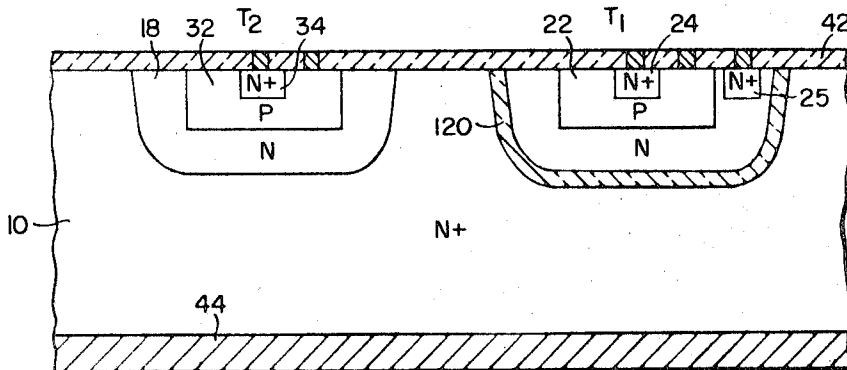


FIG. 4.

WITNESSES

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