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PANDEY et al.(10) **Pub. No.: US 2023/0231041 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **VERTICAL BIPOLAR TRANSISTORS****H01L 29/08** (2006.01)**H01L 29/423** (2006.01)(71) Applicant: **GLOBALFOUNDRIES U.S. Inc.**,
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(57)

ABSTRACT

The present disclosure relates to semiconductor structures and, more particularly, to vertical bipolar transistors and methods of manufacture. The structure includes: an intrinsic base region comprising semiconductor-on-insulator material; a collector region confined within an insulator layer beneath the semiconductor-on-insulator material; an emitter region above the intrinsic base region; and an extrinsic base region above the intrinsic base region.

