Abstracts

Heterojunction Bipolar Transistors for Microwave and Millimeter-Wave Integrated Circuits (1987 [MCS])

P.M. Asbeck, M.F. Chang, K.C. Wang, D.L. Miller, G.J. Sullivan, N.H. Sheng, E.A. Sovero and J.A. Higgins. "Heterojunction Bipolar Transistors for Microwave and Millimeter-Wave Integrated Circuits (1987 [MCS])." 1987 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 87.1 (1987 [MCS]): 1-5.

This paper reviews the present status of GaAIAs/ GaAs HBT technology and projects the impact of these devices on microwave and millimeter-wave integrated circuits. Devices with f/sub max/ above 100 GHz are described. Differential amplifiers are shown to have offset voltages with standard deviation below 2 mV and voltage gain of 200 per stage. Breakdown voltages (BV/sub CBO/) above 20 V are demonstrated. Frequency dividers operating above 20 GHz are described.

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