Abstracts

High-Performance Microwave AlGaAs-InGaAs Pnp HBT with High-DC Current Gain

W. Liu, D. Hill, D. Costa and J.S. Harris. "High-Performance Microwave AlGaAs-InGaAs Pnp HBT with High-DC Current Gain." 1992 Microwave and Guided Wave Letters 2.8 (Aug. 1992 [MGWL]): 331-333.

A Pnp heterojunction bipolar transistor, which had among the highest reported values of f/sub T/ (~23 GHz) and f/sub max/ (~40 GHz), employed a heavily doped InGaAs pseudomorphic base. However, this HBT had very low values of dc current gain (<or= 4). Pnp microwave HBT's with a modified base design are reported, which not only achieve simitar high-frequency performance, but also attain dramatically higher current gain values ~ 90.

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