Abstracts

An AlGaAs/InGaAs Pseudomorphic High Electron Mobility Transistor (PHEMT) for X- and Ku-Band Power Applications

J.C. Huang, G. Jackson, S. Shanfield, W. Hoke, P. Lyman, D. Atwood, P. Saledas, M. Schindler, Y. Tajima, A. Platzker, D. Masse and H. Statz. "An AlGaAs/InGaAs Pseudomorphic High Electron Mobility Transistor (PHEMT) for X- and Ku-Band Power Applications." 1991 MTT-S International Microwave Symposium Digest 91.2 (1991 Vol. II [MWSYM]): 713-716.

A PHEMT with simultaneous record-high output power, gain and power-added efficiency at 10 and 18 GHz has been achieved due to the use of a new method to improve the gate-drain reverse breakdown voltage. A critical surface problem was uncovered and resolved. Silicon nitride was deposited as surface passivation.

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