Abstracts

Submicron Single-Gate and Dual-Gate GaAs MESFET's with Improved Low Noise and High Gain Performance

M. Ogawa, K. Ohata, T. Furutsuka and N. Kawamura. "Submicron Single-Gate and Dual-Gate GaAs MESFET's with Improved Low Noise and High Gain Performance." 1976 Transactions on Microwave Theory and Techniques 24.6 (Jun. 1976 [T-MTT] (Special Issue on Microwave Field-Effect Transistors)): 300-305.

Microwave performance of single-gate and dual-gate GaAs MESFET's with submicron gate structure is described. Design consideration and device technologies are also discussed. The performance of these GaAs MESFET's exceeds previous performance with regard to lower noise and higher gain up to X band: 2.9-dB noise figure (NF) and 10.0-dB associated gain at 12 GHz for a 0.5-µm single-gate MESFET, and 3.9-dB NF and 13.2-dB associated gain at the same frequency for a dual-gate MESFET with two 1-µm gates.

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