

Abstracts

Enhancement-Mode GaAs MESFET Technology for Low Consumption Power and Low Noise Applications (1994 Vol. III [MWSYM])

S. Nakajima, K.-I. Matsuzaki, K. Otobe, H. Nishizawa and N. Shiga. "Enhancement-Mode GaAs MESFET Technology for Low Consumption Power and Low Noise Applications (1994 Vol. III [MWSYM])." 1994 MTT-S International Microwave Symposium Digest 94.3 (1994 Vol. III [MWSYM]): 1443-1446.

Ion implanted enhancement-mode GaAs MESFETs with an advanced LDD structure have been developed. A manufacturable self-aligned process based on a dummy gate was used for the fabrication of 0.3 μm gate device. At 1mW operation, a noise figure (NF) of lower than 1.0 dB with an associated gain of higher than 9.0 dB was measured at 6 GHz. Furthermore, a standard deviation of NF as small as 0.05 dB at an average of 0.83 dB was obtained over a 3" Phi wafer.

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