Abstracts

Highly Reliable GaAs MESFET's with a Statistic Mean NF/sub min/ of 0.89 dB and a Standard Deviation of 0.07 dB at 4 GHz (Dec. 1979 [T-MTT])

T. Suzuki, A. Nara, M. Nakatani and T. Ishii. "Highly Reliable GaAs MESFET's with a Statistic Mean NF/sub min/ of 0.89 dB and a Standard Deviation of 0.07 dB at 4 GHz (Dec. 1979 [T-MTT])." 1979 Transactions on Microwave Theory and Techniques 27.12 (Dec. 1979 [T-MTT] (1979 Symposium Issue)): 1070-1074.

High-performance and high-reliability low-noise GaAs MESFET's are studied from a practical point of view. By optimizing the structure and the configuration of GaAs FET's and by developing techniques to form a reproducible thick submicrometer gate, GaAs FET's having improved characteristics have been made. A mean minimum noise figure NF/sub min/ of 0.89 dB, a standard deviation of 0.07 dB at 4-GHz CW and a pulse input power capability of more than 0.4 and 2 W, respectively, and a failure rate, supported by field data of less than 200 FIT have become practical.

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