Abstracts

Temperature Dependent Functional Small-Signal and Noise Model of GaAs FET

Z. Nosal. "Temperature Dependent Functional Small-Signal and Noise Model of GaAs FET." 1995 MTT-S International Microwave Symposium Digest 95.3 (1995 Vol. III [MWSYM]): 1339-1342.

A new CAD oriented noise model of the GaAs small signal FET is proposed. It introduces only /underbar one/ parameter to describe noise properties of the MESFET, contrary to previous models [1-4], which used more numbers. Model components are bias and temperature dependent. Temperature dependence of parameters is modelled by a numerical approximation to the physical behavior of carrier mobility and carrier saturation velocity in GaAs. Comparison with measured and published transistor parameters is presented.

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