Abstracts

A Novel Extraction Method for Accurate Determination of HBT Large-Signal Model Parameters

D.-W. Wu, M. Fukuda and Y.-H. Yun. "A Novel Extraction Method for Accurate Determination of HBT Large-Signal Model Parameters." 1995 MTT-S International Microwave Symposium Digest 95.3 (1995 Vol. III [MWSYM]): 1235-1238.

A simple large-signal model, Extended Ebers-Moll (EEM) model, is successfully used to accurately describe the HBT nonlinear responses. A unique and efficient procedure that combines the DC, small-signal intrinsic, and parasitic extraction algorithms is developed to accurately determine the EEM parameters. This model shows excellent agreement with all experimental data and gives less than 1 dB discrepancy of measured 3rd-order intermodulation distortion with a wide range of input power drive.

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