Abstracts

A physically-based transient SPICE model for GaAs MESFET's

R.E. Leoni, III, J.W. Bao, M.S. Shirokov and J.C.M. Hwang. "A physically-based transient SPICE model for GaAs MESFET's." 1998 MTT-S International Microwave Symposium Digest 98.2 (1998 Vol. II [MWSYM]): 607-610.

A physically-based transient SPICE model was developed for GaAs MESFETs. The model accounts for both trapping and detrapping effects hence can simultaneously simulate low-frequency dispersion and gate-lag characteristics. This is different from conventional models which can simulate either effect but not both. The present model was verified in terms of pulsed I-V characteristics and digitally-modulated RF carrier waveforms.

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