Abstracts

Electrothermal modeling of multi-fingered PHEMTs applying a global approach

E. Byk, D. Lopez, D. Baillargeat, S. Verdeyme, R. Quere, R. Sommet, P. Guillon, E. Laporte and M. Soulard. "Electrothermal modeling of multi-fingered PHEMTs applying a global approach." 2002 MTT-S International Microwave Symposium Digest 02.3 (2002 Vol. III [MWSYM]): 2085-2088 vol.3.

In this paper, a global method is proposed to characterize the electrothermal behavior of multi-fingered Pseudomorphic High Electron-Mobility Transistors (PHEMTs). The method is based on the coupling of circuit, electromagnetic and thermal softwares. It is shown that scaling rules have just to be applied for intrinsic performances of a transistor when extrinsic elements and thermal effects are rigorously taken into account.

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