Abstracts

Pulse characterization of trapping and thermal effects of microwave GaN power FETs

S. Augaudy, R. Quere, J.P. Teyssier, M.A. Di Forte-Poisson, S. Cassette, B. Dessertenne and S.L. Delage. "Pulse characterization of trapping and thermal effects of microwave GaN power FETs." 2001 MTT-S International Microwave Symposium Digest 01.1 (2001 Vol. I [MWSYM]): 427-430 vol.1.

An experimental characterization of GaN FETs is given in this paper. A pulsed I-V/pulsed S-parameters measurement set-up is used to investigate the trapping and thermal behavior of GaN MESFETs. It is shown that electrical performances are strongly affected by surface and substrate traps and that those effects are closely linked to the temperature of the device. RF measurements up to a drain voltage of 100 V and a temperature of 320/spl deg/C are presented.

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