

Abstracts

Analytical expressions of transient thermal response of self-heating semiconductor devices

Y. Zhu, J.K. Twynam, M. Yagura, M. Hasegawa, Y. Eguchi, A. Yamada, E. Suematsu, K. Sakuno, H. Sato and N. Hashizurne. "Analytical expressions of transient thermal response of self-heating semiconductor devices." 1998 MTT-S International Microwave Symposium Digest 98.3 (1998 Vol. III [MWSYM]): 1357-1360.

Analytical expressions of the transient thermal response of self-heating devices have been derived based on a feedback amplifier circuit model yielding accurate methods to extract the thermal time constant in both the time and frequency domains. The transient thermal responses of GaInP/GaAs HBT were measured and explained using the expressions derived.

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