Abstracts

Bias-Dependence of the Intrinsic Element Values of InGaAs /InAlAs /InP Inverted Heterojunction Bipolar Transistor (Short Papers)

B. Meskoob, S. Prasad, M. Vai, J.C. Vlcek, H. Sato and C.G. Fonstad. "Bias-Dependence of the Intrinsic Element Values of InGaAs /InAlAs /InP Inverted Heterojunction Bipolar Transistor (Short Papers)." 1992 Transactions on Microwave Theory and Techniques 40.5 (May 1992 [T-MTT]): 1012-1014.

The small-signal S parameters of an inverted In-GaAs/ InAlAs/InP heterojunction bipolar transistor are measured at 39 bias points covering the entire useful bias region. Small-signal model fitting is performed at each bias point. The results of the small-signal model fitting show that in this device it is sufficient to take five intrinsic elements of the model to be bias dependent. The methodology and the results of the simulations are presented here.

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