

Abstracts

Parameter Extraction Technique for HBT Equivalent Circuit Using Cutoff Mode Measurement (Short Papers)

S. Lee and A. Gopinath. "Parameter Extraction Technique for HBT Equivalent Circuit Using Cutoff Mode Measurement (Short Papers)." 1992 Transactions on Microwave Theory and Techniques 40.3 (Mar. 1992 [T-MTT]): 574-577.

We propose a new parameter extraction method based on the S-parameter measurements of the HBTs biased to cutoff. This method is applied to confirm the results for the RF probe pad and interconnection pattern parasitic obtained from the special test structures, and to determine some of the device capacitances of the HBT. The remaining device parameters are extracted by the S-parameter measurements of the devices biased to the active mode. The extraction technique gives good agreement between the equivalent circuit and the measured S-parameters of the HBT including probe pads and interconnections.

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