

Abstracts

A physics-based electro-thermal model for microwave and millimetre wave HEMTs

R.G. Johnson, C.M. Snowden and R.D. Pollard. "A physics-based electro-thermal model for microwave and millimetre wave HEMTs." 1997 MTT-S International Microwave Symposium Digest 3. (1997 Vol. III [MWSYM]): 1485-1488.

An electro-thermal physical model is described for HEMT microwave and millimetre wave simulations which includes temperature effects due to self-heating within the device. Comparisons of the results from the model with measured data are made and it is found that good agreement is obtained without fitting of any of the parameters. The model is compatible with CAD requirements and is particularly suited to large-signal applications.

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