Abstracts

Transmission line model of the distributed heterojunction bipolar transistor

L.L. Liou. "Transmission line model of the distributed heterojunction bipolar transistor." 1997 MTT-S International Microwave Symposium Digest 3. (1997 Vol. III [MWSYM]): 1473-1476.

The distributed nature of heterojunction bipolar transistor was modeled using the transmission line method. Admittances due to the bipolar junction, base metal Schottky contact, base and emitter contact resistances, were taken into account. Coupled differential equations describing the distributed nature of the junction potentials were derived. A numerical scheme was developed to solve the equations, and microwave parameters were calculated. The model can be applied to design HBT layouts for high microwave performance.

❑ Return to main document.

Click on title for a complete paper.