Abstracts

A simple and accurate MESFET channel-current model including bias-dependent dispersion and thermal phenomena

Tae Moon Roh, Youngsik Kim, Youngsuk Suh, Wee Sang Park and Bumman Kim. "A simple and accurate MESFET channel-current model including bias-dependent dispersion and thermal phenomena." 1997 Transactions on Microwave Theory and Techniques 45.8 (Aug. 1997, Part I [T-MTT]): 1252-1255.

A new channel-current model of GaAs MESFET suitable for applications to microwave computer-aided design (CAD) has been developed. This model includes the frequency-dispersion effects due to traps and thermal effects. The model parameters are extracted from pulsed I-V measurements at several ambient temperature and quiescent bias points. This model is verified by simulating nonlinear circuits, such as a power amplifier and a mixer.

❑ Return to main document.