

Abstracts

A GaAs MESFET Self-Bias Mode Oscillator (Short Papers)

H. Abe. "A GaAs MESFET Self-Bias Mode Oscillator (Short Papers)." 1986 Transactions on Microwave Theory and Techniques 34.1 (Jan. 1986 [T-MTT]): 167-172.

A self-bias mode oscillation in a GaAs MESFET, with the gate terminal kept open in a dc manner, has been analyzed by a large-signal MESFET circuit model. The circuit simulation demonstrates that the gate-source Schottky barrier becomes self-biased along with the microwave oscillation build-up and that a stable self-bias gate voltage is observed with a steady-state oscillation. A self-bias mode oscillator, operable with a single positive dc bias, is realized by rising microwave integrated circuit technology.

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