Abstracts

A Power Silicon Microwave MOS Transistor

J.G. Oakes, R.A. Wickstrom, D.A. Tremere and T.M.S. Heng. "A Power Silicon Microwave MOS Transistor." 1976 Transactions on Microwave Theory and Techniques 24.6 (Jun. 1976 [T-MTT] (Special Issue on Microwave Field-Effect Transistors)): 305-311.

Vertical MOS silicon power transistors for microwave power applications have been fabricated using an angle evaporation technique to position the gate electrode on the side of a mesa. These devices have produced 3-W output power at 1.5 GHz as a Class B amplifier and exhibit excellent linearity and noise properties. Device modeling has shown that parasitic capacitances are the chief factor limiting the frequency response, and the prospects for useful devices at 4 GHz are good.

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