

Abstracts

Field Analysis of Millimeter-Wave GaAs Double-Drift IMPATT Diode in the Travelling-Wave Mode

Y. Fukuoka and T. Itoh. "Field Analysis of Millimeter-Wave GaAs Double-Drift IMPATT Diode in the Travelling-Wave Mode." 1984 MTT-S International Microwave Symposium Digest 84.1 (1984 [MWSYM]): 169-171.

An analysis of a realistic model of distributed IMPATT structures is described. Wave equations are solved with all losses included. The results show that net gain is produced at frequencies just above the avalanche resonance, while the propagation becomes slow at high frequencies. The results compare favorably with experiment.

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