Abstracts

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

Y. Fukuoka and T. Itoh. "Field Analysis of a Millimeter-Wave GaAs Double-Drift IMPATT Diode in the Traveling-Wave Mode." 1985 Transactions on Microwave Theory and Techniques 33.3 (Mar. 1985 [T-MTT]): 216-222.

An analysis of a realistic model of distributed lMPATT 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.

❑ Return to main document.