Abstracts

Broad-Band Bias-Current-Tuned IMPATT Oscillator for 100-200 GHz

E. Hagihara, M. Akaike and K. Yamamoto. "Broad-Band Bias-Current-Tuned IMPATT Oscillator for 100-200 GHz." 1982 Transactions on Microwave Theory and Techniques 30.11 (Nov. 1982 [T-MTT]): 1927-1933.

Broad-band bias-current-tuned IMPATT oscillators rising harmonic oscillations have been realized for the short-millimeter wave-length region (100-300 GHz). The relationship between diode and wave-guide parameters (breakdown voltage, junction diameter, and waveguide cutoff frequency) to obtain broad-band tunable oscillations is investigated theoretically and experimentally. Consequently, a tuning bandwidth of 35 GHz is obtained with IMPATT oscillators in the 160-GHz band, and 30 GHz in the 200-GHz band.

❑ Return to main document.