

Abstracts

High Frequency Limitation of GaAs Transit-Time Diodes

N. Lee and D.-S. Pan. "High Frequency Limitation of GaAs Transit-Time Diodes." 1982 MTT-S International Microwave Symposium Digest 82.1 (1982 [MWSYM]): 513-515.

The high-frequency capabilities of GaAs transit-time diodes have been investigated by extensive computer simulations. The spatial effect of interband tunneling and impact ionization were included. We have found GaAs diodes can operate with significant efficiency, approximately 5% in the millimeter and sub-millimeter frequency range. These results are in agreement with a recent report of a 338 GHz GaAs TUNNET/sup 1/.

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