

Abstracts

Microwave Equivalent-Circuit Parameters of Gunn-Effect-Device Packages

R.P. Owens and D. Cawsey. "Microwave Equivalent-Circuit Parameters of Gunn-Effect-Device Packages." 1970 Transactions on Microwave Theory and Techniques 18.11 (Nov. 1970 [T-MTT] (Special Issue on Microwave Circuit Aspects of Avalanche-Diode and Transferred Electron Devices)): 790-798.

The packages in which Gunn-effect devices are commonly mounted are found to have parasitic reactances which are significant at X-band. An accurate knowledge of the package equivalent circuit is essential. Precision measurements in a coaxial system have therefore been made over a very wide range of frequencies, and a consistent equivalent circuit has been derived. This differs somewhat from previously assumed equivalent circuits. The experimental results are analyzed in terms of a theoretical model based on the known structure of the package.

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