Abstracts

Measurement of the Large-Signal Characteristics of Microwave Solid-State Devices Using an Injection-Locking Technique (Short Papers)

J.C.T. Young and I.M. Stephenson. "Measurement of the Large-Signal Characteristics of Microwave Solid-State Devices Using an Injection-Locking Technique (Short Papers)." 1974 Transactions on Microwave Theory and Techniques 22.12 (Dec. 1974, Part II [T-MTT] (1974 Symposium Issue)): 1320-1323.

A method for the measurement of the dynamic admittance and susceptance of "negative-resistance" diodes is described. The device under test is allowed to oscillate in a microwave cavity, and operated as an injection-locked oscillator. Injected locking signals of the same order as the free-running output power of the oscillator are used. The dynamic conductance and susceptance of the device are obtained from the phase and amplitude response of the system.

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