Abstracts

High-Speed Microwave Switching of Semiconductors--II

R.V. Garver. "High-Speed Microwave Switching of Semiconductors--II." 1959 Transactions on Microwave Theory and Techniques 7.2 (Apr. 1959 [T-MTT]): 272-276.

A relationship between low-power isolation and small-signal, low-frequency diode resistance is reported. A study of ambient heating indicates that with increasing temperature the diode characteristics tend to approach the line characteristic of the above relationship. Observed switching speeds of 1.5 to 3.0 mμs are reported. A theory is presented which agrees with the switching time data and predicts microwave switching times as low as 0.2 to 0.3 mμs. High speed switching is discussed with reference to significant parameters, e.g., hole storage, internal heating, and pulse reverse diode characteristics.

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