

Abstracts

Pulsed Device Measurements and Applications

J. Scott, J.G. Rathmell, A. Parker and M. Sayed. "Pulsed Device Measurements and Applications." 1996 Transactions on Microwave Theory and Techniques 44.12 (Dec. 1996, Part II [T-MTT] (1996 Symposium Issue)): 2718-2723.

A pulsed measurement system can provide more than just isothermal characteristic data. An off-the-shelf system can determine rapidly the timing necessary for both pulsed-1-V and pulsed-S-parameter measurements to be isothermal and iso-dynamic. Instantaneous channel temperature may be determined. Thermal and charge-trapping effects can be separated and time constants measured. Full gain-derivative surfaces can be obtained far more efficiently than by spectral sweep measurements. Characteristics and transient effects following excursions beyond the safe-operating-area and into breakdown may be observed nondestructively.

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