

Abstracts

Analysis of Schottky-Barrier Millimetric Varactor Doublers

E. Bava, G.P. Bava, A. Godone and G. Rietto. "Analysis of Schottky-Barrier Millimetric Varactor Doublers." 1981 Transactions on Microwave Theory and Techniques 29.11 (Nov. 1981 [T-MTT]): 1145-1149.

An analysis of abrupt-junction millimetric varactor doublers using Schottky diodes is performed and numerically implemented to evaluate conditions of maximum output power. This power level, the efficiency, and the circuit parameters have been derived as a function of the geometrical and physical parameters of the junction. Physical phenomena which allow the application of the model up to the plasma resonance frequency in epilayer are taken into account. Comparison of available experimental data with the theory developed is reported.

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