

Optimization of Diode Structures for Monolithic Integrated Microwave Circuits

B.W. Battershall and S.P. Emmons. "Optimization of Diode Structures for Monolithic Integrated Microwave Circuits." 1968 Transactions on Microwave Theory and Techniques 16.7 (Jul. 1968 [T-MTT] (Special Issue on Microwave Integrated Circuits)): 445-450.

Device requirements of a medium power Ku-band reflective phase shifter are reviewed indicating a requirement for a diode with a 4-Terahertz cut-off frequency. Various structures are examined to test their suitability for integration and feasibility for meeting specifications. A "pocket version" of a surface oriented device design is chosen and described. It is shown to meet or exceed all electrical requirements while providing for compatibility with final integration into the circuit.

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