Abstracts

Yield Considerations for Ion-Implanted GaAs MMIC's (Jan. 1983 [T-MTT])

A. Gupta, W.C. Petersen and D.R. Decker. "Yield Considerations for Ion-Implanted GaAs MMIC's (Jan. 1983 [T-MTT])." 1983 Transactions on Microwave Theory and Techniques 31.1 (Jan. 1983 [T-MTT] (Joint Special Issue on Monolithic Microwave IC's)): 16-20.

An ion-implantation based process is described for fabricating GaAs monolithic microwave integrated circuits (MMIC's) incorporating active devices, RF circuitry, and bypass capacitors. Low ohmic contact resistance and good control of metal-insulator-metal (MIM) capacitance values is demonstrated and some factors affecting FET and capacitor yield are discussed. High dc yield of typical amplifier circuits is shown indicating that this process has the potential for achieving very high overall yields in a production environment. Good yield of functional MMIC modules with multicircuit complexity is projected.

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