Abstracts

High Speed Optical Detectors for Monolithic Millimeter Wave Integrated Circuits

K. Litvin, J. Burm, D. Woodard, W. Schaff and L.F. Eastman. "High Speed Optical Detectors for Monolithic Millimeter Wave Integrated Circuits." 1993 MTT-S International Microwave Symposium Digest 93.2 (1993 Vol. II [MWSYM]): 1063-1066.

Metal-semiconductor-metal photo diodes with interdigitated Schottky barrier fingers are being developed for applications in monolithic optical receiver circuits with the purpose of detecting millimeter wave modulation signals being transmitted via an optical carrier. The devices are planar and incorporate submicron finger spacings and a thin absorption region for speed with a buried stack of tuned Bragg reflectors for enhanced sensitivity at the carrier wavelength. These devices are being integrated with short-gate MODFET amplifiers to form the complete monolithic integrated optical receiver circuit.

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