Abstracts

Beam-Lead Schottky-Barrier Planar Mixer Diodes for Millimeter Wave Applications

S. Jamison, A. Contolatis, P. Bauhahn, J. Abrokwah, T. Peck, M. Helix and C. Chao. "Beam-Lead Schottky-Barrier Planar Mixer Diodes for Millimeter Wave Applications." 1981 MTT-S International Microwave Symposium Digest 81.1 (1981 [MWSYM]): 331-333.

Millimeter wave planar Schottky barrier mixer diodes with beam leads, low parasitic and one micron fingers have been developed for 35 GHz, 95 GHz and 140 GHz operation. Preliminary characterization of dual-finger mixer diodes has resulted in a double sideband noise figure of 4.0 dB at 36 GHz and 8.9 dB at 94 GHz (including 1.6 dB NF from the IF preamp). Design, fabrication, and experimental performance of these diodes is reported for 35 GHz and 95 GHz balanced mixer.

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