Abstracts

Bias Stabilization for Resonant Tunnel Diode Oscillators

M. Reddy, R.Y. Yu, H. Kroemer, M.J.W. Rodwell, S.C. Martin, R.E. Muller and R.P. Smith. "Bias Stabilization for Resonant Tunnel Diode Oscillators." 1995 Microwave and Guided Wave Letters 5.7 (Jul. 1995 [MGWL]): 219-221.

While Resonant tunnel diodes (RTD's) are useful as submillimeter-wave oscillators, circuit design constraints imposed to suppress parasitic bias circuit oscillations have limited output powers to well below 1 mW. We report a 7.GHz RTD oscillator with a shunt regulator for bias circuit stabilization. With regulation, oscillator power is not limited by stability constraints. Regulation elements are readily integrated with RTD's to construct monolithic RTD oscillator arrays.

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