Abstracts

The GaAs TUNNETT Diodes

J. Nishizawa, K. Motoya and Y. Okuno. "The GaAs TUNNETT Diodes." 1978 MTT-S International Microwave Symposium Digest 78.1 (1978 [MWSYM]): 159-161.

The Tunnel injection transit time (Tunnett) diode operates in higher frequency region and with lower noise level than that of the Impatt diode. In thin carrier generating region, the tunnel injection which depends steeply on the electric field intensity over 1000 kV/cm, where the ionization of carriers can be neglected, leads to the higher efficiency operation of the Tunnett than that of the Impatt. GaAs Tunnett diodes with p+n and p+nn+ structure have been fabricated by a new LPE method (TDM under CVP). The fundamental oscillation at the frequency from about 100 GHz up to 248 GHz has been obtained from the p+nn+ diode.

❑ Return to main document.