

Abstracts

An Evaluation of Point Contact Tunnel Diodes as Microwave Circuit Elements

R.J. Taylor and C.R. Westgate. "An Evaluation of Point Contact Tunnel Diodes as Microwave Circuit Elements." 1968 G-MTT International Microwave Symposium Digest and Technical Program 68.1 (1968 [MWSYM]): 179-183.

The point contact geometry tunnel diode is recognized as an excellent low level detector. A recent analysis indicates that the tunnel diode, under certain conditions, has a figure of merit greater than any other known diode. In diodes designed for operation in the millimeter wave region, it is found that a number of factors arise which determine the performances of the devices that are not significant in diodes designed for the lower frequencies (less than 20 GHz). This paper reports some measurements carried out on point contact tunnel diodes in the millimeter wave region and evaluates the performances of these diodes in various applications.

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