Abstracts

Internal Photovoltaic Effect in Microwave Devices

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This paper is concerned with the internal photovoltaic effect in microwave MODFETs and MESFETs. Characteristic of the photovoltaic effect are the large gain and logarithmic variation of the photoresponse with light intensity. Although the basic photodetection mechanisms are different for the two types of devices, in each case the incident light acts as an additional terminal, an "optical gate. " The optimization of the photoresponse and the photodetection performance of these devices, with respect to responsivity and bandwidth, will also be discussed.

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