Influence Of Electrode Parameters On The Performance Of Optically Controlled MESFETs

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Summary

The effects of electrode spacing oil the optical response of illuminated MESFETs are analyzed. The analysis targets various optical performance factors including terminal photocurrent peak value, peak-time and discharge time. Whereas photocurrent peak value increases nonlinearly with electrode spacing, it was found that increasing the electrode spacing has a profound effect on the ability of the device to flush-out the optically generated carriers and hence more Output delays are generated. A figure-of-merit has been defined to quantify the overall spacing effects. The simulation results show that optimum electrode spacing can be achieved. (C) 2007 Elsevier Ltd. All rights reserved.

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