

Effects Of Electrode Spacing On The Response Of Optically Controlled MESFETs

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Summary

An accurate model for the optimum design of optically controlled MOSFET structures is used. This is based on the energy formulation of the transport equation coupled with optical energy conversion. Time domain simulations show the significant effect of electrode spacing, specifically, the drain-gate separation which was varied from 0.3 to 1.4 μm . Devices with different drain-gate spacing respond differently to a fixed-waist Gaussian light pulse in terms of peak output photocurrent, waveform rise time and waveform fall time.

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