Abstracts

Transient Response of High Electric Field Picosecond Photoconductive Switch

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A numerical analysis has been performed to investigate the transient response of picosecond photoconductive switches under high electric field bias. For the first time the combined effect of carrier recombination and sweep-out coupled with the effect of velocity overshoot and saturation have been quantitatively analyzed. The simulated results shows that switches operating in the sweep-out regime can be as fast as switches operating in the recombination mode.

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