

Abstracts

The GaAs MESFET as a Pulse Regenerator in the Gigabit per Second Range (Letters)

H. Beneking and W. Filensky. "The GaAs MESFET as a Pulse Regenerator in the Gigabit per Second Range (Letters)." 1976 Transactions on Microwave Theory and Techniques 24.6 (Jun. 1976 [T-MTT] (Special Issue on Microwave Field-Effect Transistors)): 385-386.

Regeneration and amplification of fast pulses in the 50-IPS range have been established using GaAs MESFET's under switching conditions. Sharpening factors, $t_{\text{sub r in}}/t_{\text{sub r out}}$, of 3 and voltage amplification factors of 2 at 50 Omega have been achieved for output pulses up to 100 mA. The sharpening effect is caused mainly by the voltage-dependent gate capacitance which varies with the input pulse amplitude.

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