Abstracts

High Frequency Performance of Implanted Si-MOSFETs

C. Tsironis and U. Niggebrugge. "High Frequency Performance of Implanted Si-MOSFETs." 1979 MTT-S International Microwave Symposium Digest 79.1 (1979 [MWSYM]): 396-398.

Silicon MOSFETs with a 0.8/µ long channel, made by conventional technology and optimized for microwave applications, have noise figure of 3.5 dB at 4 GHz and f/sub max/ of 10 to 12 GHz. The noise and RF small signal performance are very slightly affected by channel ion implantation, used to shift the threshold voltage to positive values. The RF equivalent circuit analysis indicates negligible parasitic lead resistances but high feedback capacitance.

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