

Abstracts

Schottky Junction Transistors for micropower RFICs (2002 Vol. I [MWSYM])

J. Spann, Zhiyuan Wu, P. Jaconelli, Jinman Yang and T.J. Thornton. "Schottky Junction Transistors for micropower RFICs (2002 Vol. I [MWSYM])." 2002 MTT-S International Microwave Symposium Digest 02.1 (2002 Vol. I [MWSYM]): 533-536 vol.1.

Results are presented from measurements and numerical simulations of Schottky Junction Transistors, a new type of micropower device capable of operating at GHz frequencies in the sub-threshold regime. Detailed measurements of the d.c. characteristics of a 2 /spl mu/m gate length device agree well with numerical simulations. Measurements of transconductance and gate capacitance suggest that this relatively long gate length device will have a cut-off frequency of 126 MHz, which is again consistent with the numerical simulations. When projected to gate lengths of 0.1 /spl mu/m cut-off frequencies in excess of 10 GHz are predicted for drain currents of less than 1 /spl muA/spl mu/m.

 [Return to main document.](#)