

# Abstracts

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

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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  $\mu$ 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  $\mu$ m cut-off frequencies in excess of 10 GHz are predicted for drain currents of less than 1  $\mu$ A/ $\mu$ m.

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