

Abstracts

A New Technology for Si Microwave Power Transistor Manufacturing

P. Li and T. Boles. "A New Technology for Si Microwave Power Transistor Manufacturing." 1996 MTT-S International Microwave Symposium Digest 96.1 (1996 Vol. 1 [MWSYM]): 103-106.

We, for the first time, demonstrate a new process for Si power transistor manufacturing. The new process, combining the HMIC process and flip-chip process, completely changes the Si power transistor internal matching circuits design and manufacturing. S-band Si power transistor was used as a testing vehicle and under pulse operation condition $P_{out}=23$ W with 7.9 dB of gain and 39% of efficiency were obtained at $f=3.05$ GHz and $V_{cc}=36$ V.

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