# Abstracts

## Microwave Si power transistor with monolithically fabricated impedance matching circuits

*Ping Li, C. Luck, E. Soshea, R. Perko, T. Boles, P. Noonan and D. Haggis. "Microwave Si power transistor with monolithically fabricated impedance matching circuits." 1997 MTT-S International Microwave Symposium Digest 2. (1997 Vol. II [MWSYM]): 991-994.*

A new technology is demonstrated for microwave Si power transistor manufacturing. Based on flip-chip technology and M/A-COM's glass based technology, impedance matching circuits in microwave Si power transistor can be fabricated monolithically using standard thin film processes. Thus, the high manufacturing cost for microwave Si power transistors, primarily associated with the package and assembly, can be substantially reduced. 1.88 GHz Si power transistors were fabricated using the new technology. In CW common emitter operation mode, 5 W of output power is obtained with 11 dB gain and 39% power added efficiency, at Vcc=25 V and Icq=25 mA.

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