Abstracts

High Power Microwave Static Induction Transistor

Y. Kajiwara, T. Yukimoto and K. Shirahata. "High Power Microwave Static Induction Transistor." 1977 MTT-S International Microwave Symposium Digest 77.1 (1977 [MWSYM]): 281-284.

A new type of the transistor called "Static Induction Transistor (SIT)", based on a short channel vertical J-FET structure, has been successfully verified as a promising device for microwave high power operation. The experimental transistors we fabricated have demonstrated the following remarkable features; (1) f/sub max/ of above 5 GHz, (2) amplifying output power of 13 watts at 1GHz and (3) oscillating output power of 100 watts at 200 MHz. These data are the highest among any reported FET transistors at this frequency range.

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