Abstracts

A Super Low Noise V-Band AlInAs/InGaAs HEMT Processed by Selective Wet Gate Recess Etching

N. Yoshida, T. Kitano, Y. Yamamoto, K. Katoh, H. Minami, H. Takano, T. Sonoda, S. Takamiya and S. Mitsui. "A Super Low Noise V-Band AlInAs/InGaAs HEMT Processed by Selective Wet Gate Recess Etching." 1994 MTT-S International Microwave Symposium Digest 94.2 (1994 Vol. II [MWSYM]): 645-648.

A 0.15 µm T-shaped gate AlInAs/InGaAs high electron mobility transistor (HEMT) with excellent RF performances has been developed using a selective wet gate recess etching. An extremely low minimum noise figure (Fmin) of 0.9dB with an associated gain (Ga) of 7.0dB has been achieved at 60GHz for a SiON-passivated device. This is the lowest value of Fmin ever reported for a AlInAs/InGaAs HEMT with a passivation film.

❑ Return to main document.