Abstracts

Field-modulating plate (FP) InGaP MESFET with high breakdown voltage and low distortion

A. Wakejima, K. Ota, K. Matsunaga, W. Contrata and M. Kuzuhara. "Field-modulating plate (FP) InGaP MESFET with high breakdown voltage and low distortion." 2001 Radio Frequency Integrated Circuits (RFIC) Symposium 01. (2001 [RFIC]): 151-154.

This paper describes a successfully developed field-modulating plate (FP) InGaP MESFET with an extremely high breakdown voltage of 100 V. The FP-FET, consisting of a 2.62 mm gate width, delivered an output power of 4.3 W and an output power density of 1.6 W/mm at 1.95 GHz operated at a drain bias (Vd) of 55 V. A low 3rd-order intermodulation distortion (IM3) of -31 dBc was also achieved at 8 dB back-off from saturation power. These results show the developed FET is suited for applications in the next generation cellular base station.

❑ Return to main document.