Abstracts

High breakdown voltage InAlGaAs/In/sub 0.32/Ga/sub 0.68/As metamorphic HEMT for microwave and MM-wave power applications

C.S. Whelan, W.E. Hoke, R.A. McTaggart, P.S. Lyman, P.F. Marsh, R.E. Leoni, III, S.J. Lichwala and T.E. Kazior. "High breakdown voltage InAlGaAs/In/sub 0.32/Ga/sub 0.68/As metamorphic HEMT for microwave and MM-wave power applications." 1999 MTT-S International Microwave Symposium Digest 99.3 (1999 Vol. III [MWSYM]): 1187-1190 vol.3.

Metamorphic HEMTs are an attractive candidate for microwave and MM-wave power applications. However, poor on-state breakdown voltage has limited their use by requiring drain voltages less than or equal to 3 V. We have overcome this limitation and demonstrated high breakdown voltage metamorphic HEMTs which allow operation at V/sub ds/=6 V, resulting in high power and gain at 10 GHz.

❑ Return to main document.