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Abstract:A generalized large-signal computer simulation program for a Gunn oscillator has been developed. The properties of a Gunn diode oscillator based on the widely explored GaN, are investigated using the developed program. The results show some interesting properties in GaN Gunn diodes which are not seen in GaAs and InP diodes. An output power of 1400 kW/cmsup2/sup is achieved from the GaN Gunn diode, as compared to 4.9 kW/cmsup2/sup from a GaAs diode. © 2012 Chinese Institute of Electronics.
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