Abstracts

Recent application of silicon carbide to high power microwave

A.W. Morse, P.M. Esker, S. Sriram, J.J. Hawkins, L.S. Chen, J.A. Ostop, T.J. Smith, C.D. Davis, R.R. Barron, R.C. Clarke, R.R. Siergiej and C.D. Brandt. "Recent application of silicon carbide to high power microwave." 1997 MTT-S International Microwave Symposium Digest 1. (1997 Vol. I [MWSYM]): 53-56.

Silicon carbide is emerging semiconductor material which is now proven to be especially well suited for high power, high frequency applications. Recent results verify the superiority of silicon carbide over both silicon or gallium arsenide for fabrication of high power transistors from DC through X-band. A silicon carbide UHF television module has demonstrated good signal fidelity at the 2000 W PEP level. S-band transistors show well over 200 watts peak for radar applications, and over 6 W has been obtained at X-band in a silicon carbide MESFET.

❑ Return to main document.