Abstracts

Silicon Carbide MESFET's with 2 W/mm and 50% P.A.E. at 1.8 GHz

S.T. Allen, J.W. Palmour, C.H. Carter, Jr., C.E. Weitzel, K.E. Moore, K.J. Nordquist and L.L. Pond, III. "Silicon Carbide MESFET's with 2 W/mm and 50% P.A.E. at 1.8 GHz." 1996 MTT-S International Microwave Symposium Digest 96.2 (1996 Vol. II [MWSYM]): 681-684.

Silicon carbide MESFET's with 0.7 µm x 332 µm gates under Class B bias at 1.8 GHz had P/sub 1dB/ = 28.3 dBm (2 W/mm CW) and 50.4% PAE. At the same power density, these FET's had 66% PAE at 0.85 GHz. This high power density combined with the extremely high thermal conductivity of SiC makes it a promising technology for high power microwave applications.

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