Abstracts

Progress in high power SiC microwave MESFETs

S.T. Allen, W.L. Pribble, R.A. Sadler, T.S. Alcorn, Z. Ring and J.W. Palmour. "Progress in high power SiC microwave MESFETs." 1999 MTT-S International Microwave Symposium Digest 99.1 (1999 Vol. I [MWSYM]): 321-324 vol.1.

SiC MESFET's have shown an RF power density of 4.6 W/mm at 3.5 GHz and a power added efficiency of 60% with 3 W/mm at 800 MHz, demonstrating that SiC devices are capable of very high power densities and high efficiencies. Single devices with 48 mm of gate periphery were mounted in a hybrid circuit and achieved a maximum RF power of 80 watts CW at 3.1 GHz with 38% PAE.

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