Abstracts

Silicon carbide MESFETs for high-power S-band applications

S.T. Allen, R.A. Sadler, T.S. Alcom, J.W. Palmour and C.H. Carter. "Silicon carbide MESFETs for high-power S-band applications." 1997 MTT-S International Microwave Symposium Digest 1. (1997 Vol. I [MWSYM]): 57-60.

Silicon carbide MESFETs with 0.7 /spl mu/m gates and 18 mm of total periphery had a P/sub 1db/ of 15 watts CW at 2.1 GHz with a power-added efficiency of 54%. These FETs were optimized for S-band power and had an f/sub T/ of 8.5 GHz and an f/sub max/ of 25 GHz. Similar devices with 0.45 /spl mu/m gate lengths had an f/sub T/ of 22 GHz and an f/sub max/ as high as 50 GHz, demonstrating the potential of this technology to extend to much higher frequencies.

❑ Return to main document.