Abstracts

2.5 W CW X-Band Heterojunction Bipolar Transistor

B. Bayraktaroglu, R.D. Hudgens, M.A. Khatibzadeh and H.Q. Tserng. "2.5 W CW X-Band Heterojunction Bipolar Transistor." 1989 MTT-S International Microwave Symposium Digest 89.3 (1989 Vol. III [MWSYM]): 1057-1060.

2.43 W CW output power was obtained with AIGaAs/ GaAs heterojunction bipolar transistors at 10 GHz with 5.8 dB gain and 30% power-added-efficiency using 2 µm minimum geometry devices. The device design and fabrication techniques were improved to maintain the high power density (> 3 W/mm of emitter length) operation as the device size is increased. Accurate device models were developed both for common-emitter and common-base devices to aid in this size scaling.

❑ Return to main document.