Abstracts

28 V low thermal impedance HBT with 20 W CW output power (1997 Vol. I [MWSYM])

D. Hill and Tae Kim. "28 V low thermal impedance HBT with 20 W CW output power (1997 Vol. I [MWSYM])." 1997 MTT-S International Microwave Symposium Digest 1. (1997 Vol. I [MWSYM]): 137-140.

AlGaAs/GaAs heterojunction bipolar transistors have been fabricated which exhibit record output power for GaAs flip-chip technology, and record operating voltage for GaAs microwave power devices. Transistors with 2 mm emitter length readily achieve 20 W CW output power at 2 GHz when biased at 28 V, with typical power-added efficiencies of 62% (typical collector efficiencies of 70%). Maximum CW output power of 25 W has been obtained, corresponding to a power density of 12.5 W/mm.

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