Abstracts

A Scalable MMIC-Compatible Power HBT

G. Jackson, D. Teeter, D. Bradford and M. Cobb. "A Scalable MMIC-Compatible Power HBT." 1995 MTT-S International Microwave Symposium Digest 95.2 (1995 Vol. II [MWSYM]): 457-460.

A MMIC-compatible, scalable HBT, utilizing heatsinking through Au interconnects to local via-holes, is described. At 2.45 GHz, 960 μm² area HBTs exhibit 34.5 dBm output power, 15.5 dB gain and 57% PAE. At 10 GHz, 600 μm² HBTs have 33 dBm output, 8 dB gain, 47% PAE. Thermal impedance is reduced 40% on smaller devices, and the need for emitter ballasting is eliminated.

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