3 GHz, 15 W Silicon Bipolar Transistors (1979 [MWSYM])

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Silicon bipolar transistors delivering 15W output power with 4.8dB gain and 38% collector efficiency have been developed at 3GHz. The transistors have been fabricated by boron ion-implantation for base region and As diffusion from doped poly silicon for emitter region. Chemical dry etching techniques for fine patterning, and internal matching-techniques have been applied.

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