Abstracts

Flip-chip mounted silicon-based Impatt diodes for automotive applications

M. Wollitzer, K.M. Strohm, H. Jorke, J.-F. Luy, R.H. Rasshofer and E.M. Biebl. "Flip-chip mounted silicon-based Impatt diodes for automotive applications." 1998 MTT-S International Microwave Symposium Digest 98.3 (1998 Vol. III [MWSYM]): 1699-1702.

We present the first silicon-based active antenna based on flip-chip mounted Impatt diodes. Our results show that flip-chip integration of Impatt diodes is a very promising alternative to monolithic integration since expected output power and heat removal is improved significantly. Compared to active antennas based on monolithic integration, the chip size of the novel flip-chip device is reduced by a factor of 50. Due to this fact, considerable reduction of manufacturing costs is expected.

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