Abstracts

Ultra-fast, low-power integrated circuits in a scaled submicron HBT IC technology

M. Hafizi and J.F. Jensen. "Ultra-fast, low-power integrated circuits in a scaled submicron HBT IC technology." 1997 Radio Frequency Integrated Circuits (RFIC) Symposium 97. (1997 [RFIC]): 87-90.

We have developed fast, dense, and low-power integrated circuits using a new scaled IC process. We have fabricated HBTs of 0.3 /spl mu/m/sup 2/ emitter and circuit metalization pitch of 4 /spl mu/m to reduce power and compact the chip size. Submicron HBTs exhibited f/sub T/ of over 160 GHz. We have demonstrated a number of circuits including a low-power comparator test chip clocked at 40 GHz.

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