

35nm CMOS FinFETs

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Abstract

We demonstrate for the first time high performance 35 nm CMOS FinFETs. Symmetrical NFET and PFET off-state leakage is realized with a simple technology. For 1 volt operation at a conservative 24 Å gate oxide thickness, the transistors give drive currents of 1240 $\mu\text{A}/\mu\text{m}$ for NFET and 500 $\mu\text{A}/\mu\text{m}$ for PFET at an off current of 200 nA/ μm . Excellent hot carrier immunity is achieved. Device performance parameters exceed ITRS projections.