一种适用于 FinFET 单存储单元的高效的

动态故障测试算法

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摘　要：FinFET 作为现在最前沿的晶体管技术，在嵌入式存储器上得到了广泛应用.但是，新的工艺也带来了新的缺陷.Synopsys 公司通过故障建模及测试发现:FinFET 存储器比平面存储器对动态故障更敏感.而经典的测试算法仅仅针对静态故障.目前关于动态故障的测试算法极少，并且复杂度很高.因此，本文提出了一种改进的动态故障测试算法，该算法能够覆盖所有连续两次敏化操作的单单元动态故障.

关键词：SRAM；March 算法；动态故障；故障原语；MBIST

An Efficient Dynamic Fault Test Algorithm for

FinFET Single Memory Cell

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Abstract：FinFET as the most advanced transistor technology, has been widely used in embedded memory. However, the new process also brings new defects. Synopsys found through fault modeling and testing that FinFET memory is more sensitive to dynamic faults than planar memory. The classic test algorithm is only for static faults. At present, there are few test algorithms for dynamic faults, and the complexity is very high. Therefore, an improved dynamic fault test algorithm is proposed in this paper. This algorithm can cover all single-cell dynamic faults in two successive sensitization operations.

Key words：SRAM; march algorithm; dynamic fault; fault primitive；MBIST.

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