0.18µm SBT-Based Embedded FeRAM Operating at a Low Voltage of 1.1V


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We have successfully developed a 0.18µm SBT-based 1Mbit embedded FeRAM, which operates at a very low voltage of 1.1V and ensures the data retention time up to 1000 hours at 125°C. The low voltage operation and high reliability characteristics of 0.18µm embedded FeRAM are the first demonstration to our knowledge. These excellent characteristics have been attained by newly developed FeRAM completely encapsulated by hydrogen barriers.