[II-30] [초청]

Principle, current status, and developing trend of FRAM

ILSUB CHUNG, IN SOOK YI, JUNGHO LEE

Microelectronics Lab., Material and Device Sector Samsung Advanced Institute of Technology, P.O. Box 111, Suwon 440-600, Korea

Ferroelectric materials are characterized by the existence of a spontaneous remnant polarization that can be switched between two stable states by an applied field. This phenomenon is known as ferroelectricity. The ferroelectricity can be utilized for nonvolatile memory application. Up to now 256K FRAM was successfully fabricated and sold in the memory market. This paper will briefly review the current status of ferroelectric random access memory (FRAM) focusing on recent developments. In addition, the future prospects of FRAM will be addressed.