RAPID THERMAL ANNEALING OF SILICON STRUCTURES

ABSTRACT

In a single step rapid thermal annealing (SS-RTA) process, a semiconductor material is annealed in a single step at an elevated temperature for a predetermined time in an atmosphere of oxygen. Preferably, polycrystalline silicon is annealed at 900 to 1100 ^{O}C for 20 to 40 seconds. The SS-RTA process is used to anneal out and reduce defects and lower device leakage currents after ion implantation during fabrication of MOSFET semiconductor devices such as high-density memory; e.g. flash memories and SRAM.

(Figure 3)

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