

ABSTRACT

SILICON WAFER AND METHOD FOR PRODUCING THE SAME

- 5 There is provided a silicon wafer composed of a silicon crystal having excellent GOI characteristics of an oxide film and high C-mode pass rate. In addition, a method for producing the silicon wafer is provided.
- 10 The silicon wafer is doped with nitrogen, hydrogen and carbon, and comprises:
a plurality of voids, wherein a number of voids which is equal to or more than 50% of the total number of voids compose bubble-like shaped aggregates of voids;
- 15 a V1 region having a void density of over $2 \times 10^4/\text{cm}^3$ and below $1 \times 10^5/\text{cm}^3$ which occupies equal to or less than 20% of the total area of said silicon wafer;
a V2 region having a void density of 5×10^2 to $2 \times 10^4/\text{cm}^3$ which occupies equal to or more than 80% of the total area of said
- 20 silicon wafer; and
a bulk micro defect density which is equal to or higher than $5 \times 10^8/\text{cm}^3$.

Fig. 9