

Abstract

Semiconductor wafer composed of silicon and method for producing same

5

A semiconductor wafer composed of monocrystalline silicon having a front side and having a rear side and having a denuded zone, which extends from the front side to the rear side as far as a depth which between a center and an edge of the

10

semiconductor wafer on average is not less than $8\text{ }\mu\text{m}$ and not more than $18\text{ }\mu\text{m}$, and having a region which adjoins the denuded zone and has BMDs whose density at a distance of $30\text{ }\mu\text{m}$ from the front side is not less than $2 \times 10^9\text{ cm}^{-3}$. The method for producing the semiconductor wafer comprises providing a

15

substrate wafer composed of monocrystalline silicon and an RTA treatment of the substrate wafer, which is subdivided into a first thermal treatment of the substrate wafer in an atmosphere consisting of argon and into a second thermal treatment of the substrate wafer in an atmosphere consisting of argon and

20

ammonia.

Drawing for the abstract: figure 2