

ABSTRACT

WAFER PROCESSING METHOD

A wafer processing method includes: an alignment step of detecting an alignment mark through a sealing material by a visible light imaging unit from the front surface side of the wafer, and detecting a division line to be laser processed based on the alignment mark; a modified layer forming step of emitting a laser beam of such a wavelength as to pass through the sealing material along the division lines from the front surface side of the wafer, with a focal point of the laser beam being positioned inside the sealing material in cut grooves, to form modified layers inside the sealing material in the cut grooves; a grinding step of grinding the wafer from a back surface side of the wafer to the finished thickness of each of the device chips to expose the sealing material in the cut grooves; and a dividing step of applying an external force to the sealing material in the cut grooves, and dividing the wafer, with the modified layers serving as starting points of division, into individual device chips each of which has its front surface and four side surfaces surrounded by the sealing material.

(Figure 4)