

SEMICONDUCTOR WAFER PROCESSING METHOD

ABSTRACT

Disclosed herein is a processing method for a semiconductor wafer having a semiconductor substrate and a stacked layer formed on the front side of the semiconductor substrate. A plurality of devices are formed by the stacked layer. The devices are separated from each other by a plurality of streets. A glass passivation film is formed on the front side of the stacked layer so as to cover the devices and the streets. The processing method includes a first groove forming step of applying a CO₂ laser beam having an absorption wavelength to the glass passivation film along each street to thereby form a first groove for dividing the glass passivation film along each street and a second groove forming step of applying a laser beam having an absorption wavelength to the stacked layer along the first groove after performing the first groove forming step, thereby forming a second groove for dividing the stacked layer along each street.

(Figure 4.A)