

Abstract

A method of cutting a wafer by irradiating the wafer with laser energy, comprises emitting a sequence of successive laser beam pulses having a first set of laser beam pulses
5 and a second set of laser beam pulses, the first set of laser beam pulses comprising: laser beam pulses having respective pulse widths in the range from 0.1 to 300 nanoseconds, or a plurality of bursts of laser beam pulses having an inter-burst spacing in the range from 0.1 to 100 nanoseconds, each pulse within the bursts having a pulse width of 100 picoseconds or less, and the second set of laser beam pulses comprising laser beam pulses having pulse
10 widths of 100 picoseconds or less.

FIG. 4