ABSTRACT

APPARATUS AND METHOD FOR DICING SEMICONDUCTOR WAFERS

A wafer (64) to be diced to form chips is placed on the sticky side of a thin elastic film (26) in the form of a Swiss Cross which is secured to the side members of a compressed but expandable square frame (2), the frame being placed in a scribing and dicing machine (89) in its released state so that the frame and thus the film can expand during the dicing operation, further expansion being accomplished after dicing of the wafer by heating the film while in an expansion fixture (122) to insure removal of the chips from the film without damaging adjacent chips. The sticky material on the film may be rendered less sticky after formation of the chips by exposure to ultraviolet energy or the like.

Fig. 10