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PROCESS FOR PRODUCING SEMICONDUCTOR CHIP

ABSTRACT

A process for producing semiconductor chips, comprising the following steps. A semiconductor wafer having a surface overlaid with circuits is provided. An arrangement wherein a back of the semiconductor wafer is fixed on a dicing tape and wherein a pressure sensitive adhesive double coated sheet is stuck to a circuit surface of the semiconductor wafer is formed. The pressure sensitive adhesive double coated sheet comprises a shrinkable base having its both sides overlaid with pressure sensitive adhesive layers. At least one of the layers is composed of an energy radiation curable pressure sensitive adhesive. The semiconductor wafer together with the pressure sensitive adhesive double coated sheet is diced by each circuit to thereby form semiconductor chips. The semiconductor chips are fixed on a transparent hard plate by adherence of the pressure sensitive adhesive layer of the pressure sensitive adhesive double coated sheet remote from the semiconductor chips. The dicing tape is stripped from the semiconductor chips. The pressure sensitive adhesive double coated sheet, on its transparent hard plate side, is irradiated with energy radiation. The shrink base of the pressure sensitive adhesive double coated sheet is shrunk, and the

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semiconductor chips are picked up. In the working of a semiconductor wafer into extremely reduced thickness, semiconductor chips can be produced with high yield without suffering from damaging of semiconductor chips such as chip splitting or cracking.

Figure 2