

WHAT IS CLAIMED IS:

1. A method of manufacturing a molded chip, comprising:

a preparing step of sticking device faces of a plurality of device chips arrayed to a protective member that is thermally insulative, thereby forming a chip group of the device chips;

a molding step of, after the preparing step, supplying a molding resin to reverse sides of the device chips and gaps between the device chips, thereby forming a molded wafer in which the reverse sides and side faces of the device chips are covered with a resin molding; and

a molded wafer dividing step of, after the molding step, dividing the molded wafer along centers of the gaps filled with the resin molding into molded chips on a basis of an image in which a face side of the molded wafer has been imaged, wherein

the wafer has an arcuate outer circumferential side face, the preparing step includes an edge trimming step of trimming the arcuate portion on the face side of the wafer off along the outer circumferential edge, and

a molding resin supplied to the reverse side of the wafer is pressed against the reverse side of the wafer in a mold in the molding step.

2. The method of manufacturing a molded chip according to claim 1, wherein

the preparing step includes

a groove forming step of forming grooves in a wafer having a plurality of areas demarcated by a grid of projected dicing lines on a face side of the wafer and a plurality of devices formed respectively in the areas, to a depth larger than a finished thickness,

a protective member sticking step of sticking the

protective member to the face side of the wafer in which the grooves have been formed, and

a grinding step of grinding a reverse side of the wafer, thereby exposing the grooves on the wafer and dividing the wafer into the device chips.

3. The method of manufacturing a molded chip according to claim 1, wherein

the preparing step includes

a thinning step of grinding a reverse side of a wafer having a plurality of areas demarcated by a grid of projected dicing lines on a face side of the wafer and a plurality of devices formed respectively in the areas, thereby thinning the wafer to a finished thickness, and

a dividing step of dividing the thinned wafer along the projected dicing lines.

4. The method of manufacturing a molded chip according to claim 1, further comprising:

an expanding step of, after the preparing step and before the molding step, expanding the protective member in planar directions, thereby widening distances between the device chips.

5. The method of manufacturing a molded chip according to claim 1, further comprising:

a protective member peeling step of, after the molding step, sticking an adhesive tape to a reverse side of the molded wafer and peeling off the protective member from the face side of the molded wafer, wherein

the molded wafer is divided from the face side of the molded wafer in the molded wafer dividing step.