WHAT IS CLAIMED IS:

1. A manufacturing method of chips in which a workpiece including a plurality of planned dividing lines on a front surface is divided along each planned dividing line to manufacture the chips from the workpiece, the manufacturing method of chips comprising:

a cutting step of causing a cutting blade to cut into the workpiece for which a side of the front surface of the workpiece is held by a holding table in such a manner that a side of a back surface of the workpiece is exposed and forming a cut groove that does not reach the front surface of the workpiece on the side of the back surface of the workpiece along each planned dividing line;

a sticking step of sticking an expanding sheet to the workpiece; and

a dividing step of dividing the workpiece along each planned dividing line by expanding the expanding sheet to form the chips from the workpiece after the sticking step and the cutting step, wherein:

a cutting position detection step of imaging the front surface of the workpiece by a camera for visible light through the holding member and detecting at least one planned dividing line before the cutting step, the workpiece includes a substrate and a metal layer that is

disposed on one surface of the substrate and is located on the side of the back surface of the workpiece.

2. The manufacturing method of chips according to claim 1, the holding table having a holding member that is at least partly transparent from a front surface of the holding member to a back surface of the holding member.

3. The manufacturing method of chips according to claim 3, wherein

the cutting blade is caused to cut into the workpiece from the side of the back surface of the workpiece to form the cut grooves in the cutting step.

4. The manufacturing method of chips according to claim 1, wherein

the sticking step is carried out before the cutting step,

the expanding sheet is stuck to the side of the front surface of the workpiece in the sticking step, and

the cut grooves are formed in the workpiece in a state in which the side of the front surface of the workpiece is held by the holding table with intermediary of the expanding sheet in the cutting step.

5. The manufacturing method of chips according to claim 1, wherein

the sticking step is carried out after the cutting

step, and

the expanding sheet is stuck to the side of the back surface of the workpiece in the sticking step.

6. The manufacturing method of chips according to claim 1, wherein

the cutting blade has a pair of inclined surfaces or a curved surface at an outer circumferential part, and

the workpiece is cut by the cutting blade in the cutting step.

7. The manufacturing method of chips according to claim 1, wherein

the workpiece has a circuit layer including insulating layers and interconnect layers that are alternately stacked on the side of the front surface, and

the cut grooves that do not reach the circuit layer are formed in the workpiece in the cutting step.

8. The manufacturing method of chips according to claim 7, wherein

the substrate is silicon carbide substrate,

each bottom part of the cut grooves is separated from the boundary between the silicon carbide substrate and the circuit layer by a predetermined distance, and

the predetermined distance is longer than 10 μm and is equal to or shorter than 30 μm.