A method of manufacturing a semiconductor device of this invention relates to a method of manufacturing a semiconductor device with ultra-micropattern electrodes. Light is projected on a resist film, and reflected light from a region on which no semiconductor chip is formed, i.e., a flat region is detected to measure the thickness of the resist film. Based on the measured thickness, at least one of the resist film forming step, the exposing step, and the developing step is controlled, so that the electrodes have a desired width.

6 Claims, 9 Drawing Sheets