

ABSTRACT

APPARATUS FOR DETECTING SEMICONDUCTOR BONDING DEFECTS

Provided is a bonding defect detecting system that can detect a bonding defect without being influenced by differences in device types, the positions of the pins or the operational state of the bonder. The system comprises means 11, 12 for performing analog to digital conversion of a voltage waveform and current waveform that are input thereto by being sampled on a real time basis from an ultrasonic oscillator 21 during a bonding process of a pin being bonding with ultrasonic waves, digital signal processing means 13 for calculating specific data such as frequency, phase difference between the voltage waveform and the current waveform and impedance from the sampled data that are digitally converted, data accumulating means 14 for accumulating the digital data that has been obtained by being calculated by the digital signal processing means 13 for each pin, and determining means 15 for comparing a previous average value of a plurality of digital data that are accumulated in the data accumulating means 14 with a present digital datum that has been obtained by being calculated by the digital signal processing means 13, to thereby determine a bonding defect.

(Figure 1)