ABSTRACT

FORCE SENSOR IN AN ULTRASONIC WIRE BONDING DEVICE

A force sensor for determining a bonding force during wire bonding operations includes: a piezoelectric sensing element mounted in an ultrasonic transducer of an ultrasonic wire bonding device, the piezoelectric sensing element including a first portion and a second portion, and first and second opposing surfaces, wherein the first surface of the first portion has a positive electrode and the second surface of the first portion has a negative electrode respectively, and the first surface of the second portion has a negative electrode and the second surface of the second portion has a positive electrode respectively.

[FIG. 1A]