

ABSTRACT

Problem: To provide a laser soldering technique which can prevent generation of scorching of a substrate or heat-susceptible components in the surroundings, residues, etc. Solution: In an automatic soldering method carried out using an automatic soldering device 40 that includes a laser soldering device 1 and a Z-axis drive device 43, the method comprising a step of adjusting a height of the laser soldering device 1 to a position at which laser light has a preset irradiation diameter D1 larger than a diameter of a solder droplet S, a step of irradiating the solder droplet S with the laser light to heat the solder droplet S to a temperature at which a flux solvent component volatilizes and a solder powder does not melt; a step of adjusting the height of the laser soldering device to a position at which the laser light has a preset irradiation diameter D2 smaller than the diameter of the solder droplet S, and a step of irradiating the solder droplet S with the laser light to heat the solder droplet S to a temperature at which the solder powder melts, and performing soldering. An automatic soldering device implementing the above automatic soldering method is also provided.

Figure 5