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(54) **METHOD FOR SOLDERING AN ELECTRONIC COMPONENT TO A CIRCUIT BOARD BY JETTING LIQUEFIED SOLDER INTO A THROUGH HOLE**

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**ABSTRACT**

A method for soldering an electronic component to a circuit board involves jetting liquefied solder. A laser beam melts a solid solder ball to produce a liquefied solder ball before the ball is jetted. The liquefied solder ball is jetted towards a through hole in the circuit board such that a portion of the liquefied solder ball flows into an annular gap between a pin and sides of the through hole. The pin is attached to the electronic component and passes through the through hole. As the liquefied solder ball is jetted towards the through hole, the laser beam is directed at the ball so as to keep it liquefied. How much of the solder ball remains outside the through hole after liquefied solder has flowed into the annular gap is determined. The filling degree of the annular gap is determined based on how much solder remains outside the hole.

