Resin Flow Characteristic of Underfill Process on Flip Chip Encapsulation

沈永康
Shen YK;Ju CM;Shie YJ;Chein HW

Abstract

Flip chip package is the most important technology in IC package for the necessary of scale, velocity and cost by the development of semiconductor technology and the innovation of computer product. This paper indicates that the analysis for flow visualization of the solder ball and chip between numerical simulation and experiment. A finite element simulation of moving boundaries in a three-dimensional inertia-free, incompressible flow is presented. The injection situation uses for one line injection, L line injection, U line injection and central point injection location. The injection process uses for different parameters (mold temperature, injection temperature, injection pressure, injection time). The results show that the filling situation for numerical simulation is closer to experiment.