

Room Temperature Fast Flow Reworkable Underfill for LGA

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Abstract

With the miniaturization of electronic device, Land Grid Array (LGA) or QFN has been widely used in consumer electronic products. However there is only 20-30 microns gap left between LGA and the substrate, it is very difficult for capillary underfill to flow into the large LGA component at room temperature. Insufficient underfilling will lead to the loss of quality control and the poor reliability issue.

In order to resolve these issues, a room temperature fast flow reworkable underfill has been successfully developed with excellent flowability. The underfill can flow into 20 microns gap and complete the flow of 15mm distance for about 30 seconds at room temperature. The curing behavior, storage, thermal cycling performance and reworkability will be discussed in details in this paper.