

Effect of aging temperature on the intermetallic compound (IMC) formation of Sn-0.7Cu/Si₃N₄ composite solder

Abstract

Nowadays, excessive growth intermetallic formation becomes the major issue in electronic packaging industry. The investigation on the effect of aging temperature to the intermetallic compound (IMCs) growth formation for Sn-0.7Cu/1.0-Si₃N₄ was studied. Isothermal aging process was carried out for 24 hours, with 5 difference aging temperature from 50°C up to 150°C. It is found that the Cu-Sn IMCs which appear after reflowed process, has grew rapidly when aging temperature was increased up to 125°C and started to reduced after 150°C aging temperature.

Keywords — Aging, composite, intermetallic