

[ABSTRACT]

Provided is a lead-free solder alloy and soldering capable of maintaining strong joining strength even in a high-temperature state after soldering and having high reliability and versatility.

- 5 The lead-free solder alloy composition of the present invention has Sn-Cu-Ni as a basic composition, which includes 0.1 to 2.0 mass% of Cu, and 0.01 to 0.5 mass% of Ni, 0.1 to 5 mass% of Bi, and 76.0 to 99.5 mass% of Sn, such that it is possible to implement soldering with high reliability without decreasing joining strength of a
- 10 soldered joint even in a state of being exposed to high temperature for a long time, as well as joining strength at the time of bonding.