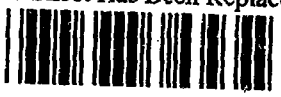
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ABSTRACT OF THE DISCLOSURE

A connection structure between lead frames and a base plate of aluminum nitride, to be applied as a connection structure between components of a semiconductor apparatus, comprises the base plate formed of a sintered body of aluminum nitride on which a semiconductor device is to be mounted, the lead frames including, as a main material, iron alloy containing nickel in 29 wt.% and cobalt in 17 wt.%, and silver solder for joining the base plate and the lead frames. A surface of the lead frame to be joined to the base plate is formed of oxygen-free copper of a high plastic deformativity to relieve, by plastic deformation of itself, a thermal stress caused by a difference between a thermal expansion coefficient of the base plate and that of the lead frame in a cooling process at the time of soldering. Preferably, only a portion of each lead frame to be joined to the base plate comprises an inner layer portion of iron alloy containing nickel in 29 wt.% and cobalt in 17 wt.%, and an outer layer portion of oxygen-free copper.

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