

ABSTRACT

There is provided a novel Cu bonding wire that achieves a favorable FAB shape and reduces a galvanic corrosion in a high-temperature environment to achieve a favorable bond reliability of the 2nd bonded part. The bonding wire for semiconductor devices is characterized in that the bonding wire includes: a core material of Cu or Cu alloy; and a coating layer containing conductive metal other than Cu formed on a surface of the core material, wherein the coating layer has a region containing Pd as a main component on a core material side, and has a region containing Ni and Pd in a range from a wire surface to a depth of 0.5d when a thickness of the coating layer is defined as d (nm) in a thickness direction of the coating layer, the thickness d of the coating layer is 10 nm or more and 130 nm or less, a ratio C_{Ni}/C_{Pd} of a concentration C_{Ni} (mass%) of Ni to a concentration C_{Pd} (mass%) of Pd relative to the entire wire is 0.02 or more and 0.7 or less, and a position indicating a maximum concentration of Ni is present in the range from the wire surface to a depth of 0.5d in a concentration profile in a depth direction of the wire, and the maximum concentration of Ni is 10 atomic% or more.

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[No suitable figure]