

[TITLE OF DOCUMENT] ABSTRACT

SOLDER ALLOY, SOLDER PASTE, SOLDER BALL, RESIN FLUX-CORED
SOLDER AND SOLDER JOINT

5 The present invention provides a solder alloy, a solder paste, a solder ball, a resin
flux-cored solder and a solder joint, both of which has the low-melting point to suppress
the occurrence of the fusion failure and has excellent mechanical properties, impact
resistance and excellent heat-cycle resistance. In order to achieve miniaturization of
the alloy organization, the alloy composition is composed of 35 to 68 mass% of Bi, 0.5 to
10 3.0 mass% of In, 0.01 to 0.10 mass% of Pd, and a balance of Sn. The alloy composition
may contain 1.0 to 2.0 mass% of In, contain 0.01 to 0.03 mass% of Pd and contain at
least one of Co, Ti, Al and Mn in total amount of 0.1 mass% or less. The solder alloy
may be suitably used for a solder paste, a solder ball, a resin flux-cored solder and a
solder joint.