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(54) **Title:** Pb-FREE SOLDER ALLOY

(57) **Abstract:** A Pb-free solder alloy contains 4-12 wt% of Zn, 0.5-4 wt% of Bi, 0.5-5 wt% of In, 0.005-0.5 wt% of P, 0.001-0.5 wt% of Zr and at least one selected from a group consisting of: 0-0.1 wt% of Y, 0-0.2 wt% of Ge, 0-0.05 wt% of Mg, 0-0.02 wt% of B, 0-0.05 wt% of Al, 0-0.2 wt% of Ni and 0-0.3 wt% of Ag. And a balance of the Pb-free solder alloy is Sn.



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