

ABSTRACT

SOLDER ALLOY, CAST ARTICLE, FORMED ARTICLE, AND SOLDER JOINT

5 Provided are a solder alloy with which it is possible to cast a cast article having a
desired thickness, a cast article, a formed article, and a solder joint. The solder alloy has an
alloy composition comprising, in terms of mass%, 0.1-2.0% of Cu, 0.01-0.4% of Ni,
0.001-0.08% of P, and 0.001-0.08% of Ge, the balance being Sn. The alloy composition
satisfies expressions (1) to (3). Expression (1): $(\text{Cu} + 5\text{Ni}) \leq 0.945\%$ Expression (2): $(\text{P} +$
10 $\text{Ge}) \leq 0.15\%$ Expression (3): $2.0 \leq (\text{Cu} + 5\text{Ni})/(\text{P} + \text{Ge}) \leq 1000$ In expressions (1) to (3), Cu,
Ni, P, and Ge each represent component contents (in mass%) within the solder alloy.

Fig. 1