

Abstract

Method for pulling a single-crystal ingot

- 5 A method for pulling a single-crystal ingot from a silicon melt according to the Czochralski technique, comprising the following steps:
- (i) providing a silicon melt and a seed crystal of monocrystalline silicon above the melt, with the silicon melt and/or the seed crystal optionally comprising dopants;
 - (ii) lowering the seed crystal until contact is produced between the seed crystal
10 and the silicon melt; and
 - (iii) pulling a seed cone, a thin neck, a starting cone and a cylindrical portion of the single-crystal ingot in this order by raising the seed crystal;
- wherein the seed cone has an upper diameter of not less than 12 mm and not more than 22 mm, a lower diameter of not less than 2 mm and not more than 10 mm, and
15 an axial length of not less than 75 mm and not more than 300 mm.

Figure for Abstract: Fig. 1