超極細線でのワイヤ流れに及ぼす引張強度の影響

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The Effect of Tensile Strength on Wire Sweep of Ultra Fine Wires

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Abstract

In this study, we investigated the effect of wire strength on wire sweep after the semiconductor transfer molding assembly process. The wire sweep, loop height, and tensile strength of $25\,\mu\text{m}$, $20\,\mu\text{m}$, and $15\,\mu\text{m}$ diameter wires were measured. As the tensile strength of $25\,\mu\text{m}$ wires is higher, wire sweeps have a tendency to become smaller with 4.7 mm loops. However, such a trend is not shown in the case of $15\,\mu\text{m}$ wires. It is found that the wire sweep of $15\,\mu\text{m}$ wires depends on the loop height when the loop length is more than 4 mm, and it depends on the wire tensile strength when the loop length is less than 4 mm.

Key Words: Bonding Wire, Wire Sweep, Wire Bonding, Molding, Tensile Strength

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