

# High-Strength Solder Alloy (Strong Joint Metal -> SJM-Series)

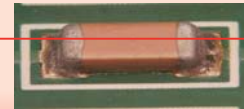
## Thermal Cycle (After 1500 cycles Cross section)

Heat Cycle condition: -40°C - +85°C

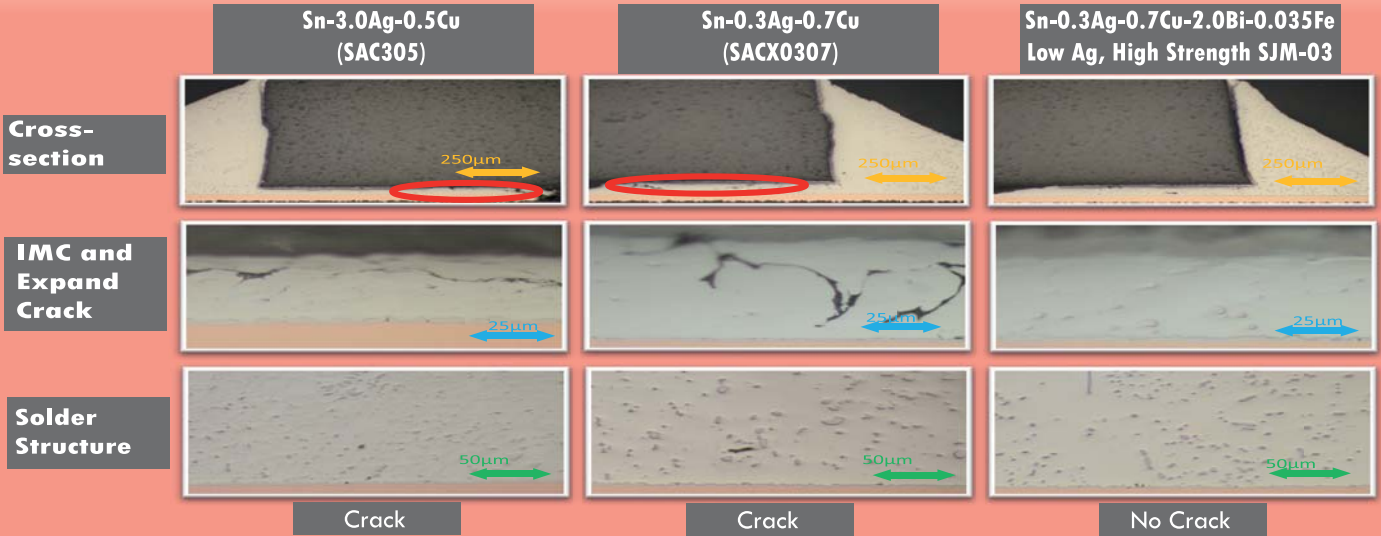
Soaking Time: 30 min.

Device: 1206 chip Resistor

Cross section analysis: Cut and analyse after 1500 cycles



Cross cut area



**SJM-03 has no cracks after 1500 cycles**

## Thermal cycle characteristics (Push Pull comparison)

Heat Cycle condition: -40°C - +85°C

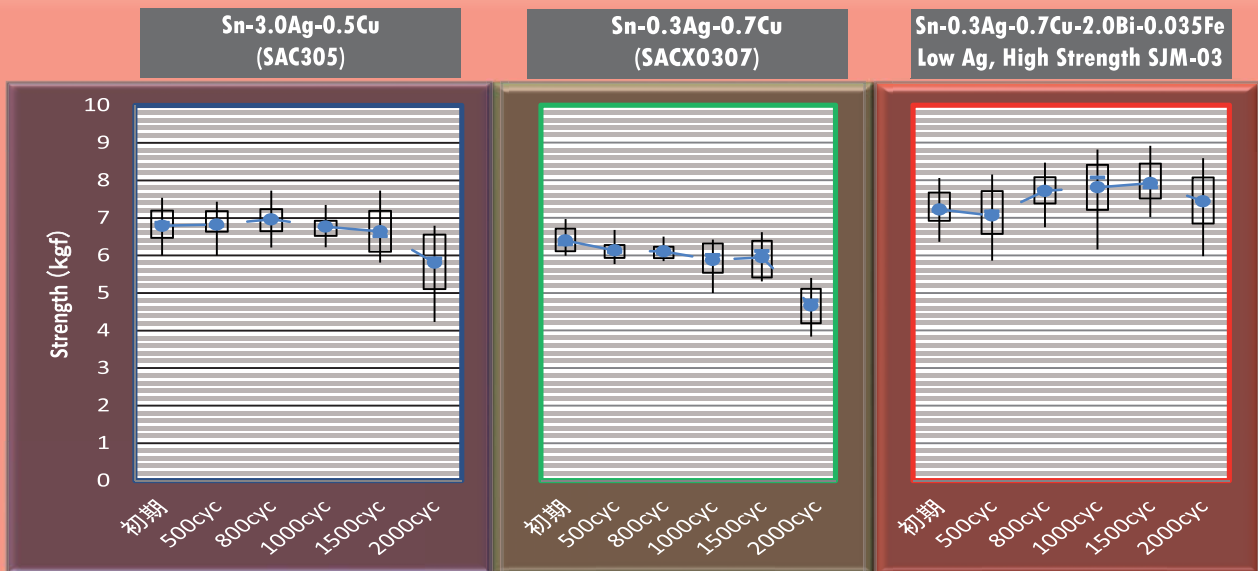
Soaking Time: 30 min.

Device: 1206 chip Resistor

Push Pull test: Push Device by 1mm/min and measure strength



1mm/min



**SJM-03 has approx. 6% at initial stage and approx. 35% better strength after 2000 cycles than SAC305.**

### Specification

Alloy name	Composition	Melting range	Available as	Features
SJM-03(S)	Sn-0.3Ag-0.7Cu-2.0Bi-0.035Fe	210 - 226°C	Cored solder wire and Solder paste	Almit patented alloy
SJM-10(S)	Sn-1.0Ag-0.7Cu-2.0Bi-0.035Fe	212 - 224°C	Cored solder wire and Solder paste	Almit patented alloy
SJM-30	Sn-3.0Ag-2.0Bi-1.0Sb	216 - 224°C	Cored solder wire and Solder paste	Almit patented alloy
SJM-35	Sn-3.0Ag-2.0Bi	216 - 220°C	Cored solder wire and Solder paste	Almit patented alloy