

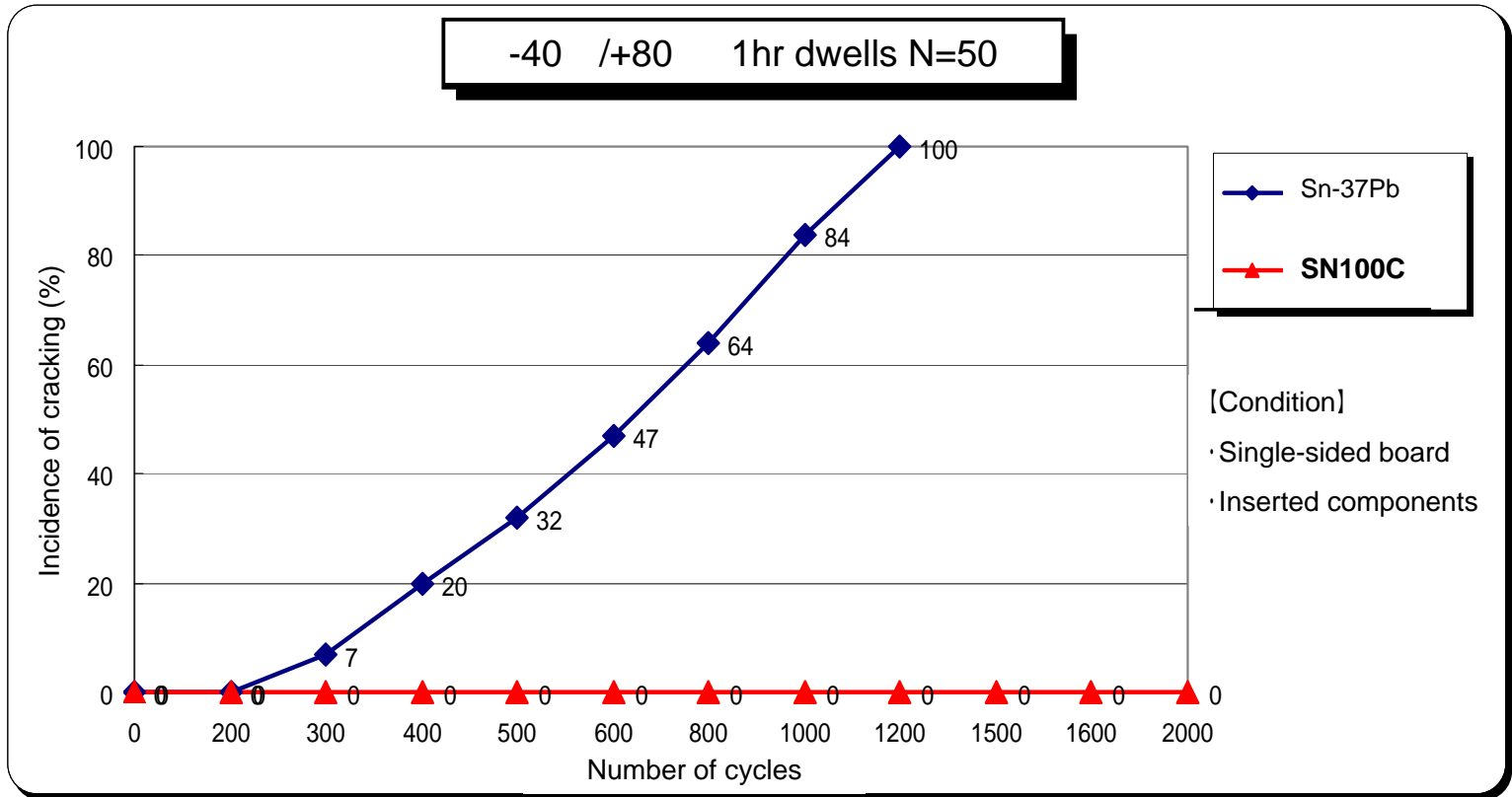
## SN100C- Reliable Joints

# Long Service Life Under Conditions of Thermal Cycling






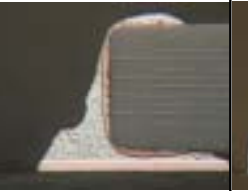





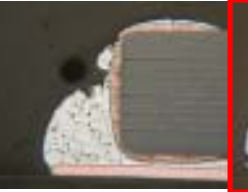








SN100C is an excellent lead-free solder that offers high first pass yield, *reliable joints* and economical operation. We present here a selection of data that confirms the excellent resistance of SN100C to thermal fatigue.

**Thermal cycling test – Incidence of cracking in Inserted components**



**No failures occurred in SN100C joints after 2000 cycles of -40 / +80 while all the Sn-37Pb joints had failed by ~1200 cycles with the first failure occurring at less than 200 cycles.**

**Thermal cycling test** – Comparison of the incidence of cracking in surface mounted devices (Cross-section)

	Size (mm) : 3216 Chip		1000cycles	2000cycles	3000cycles	4000cycles
	Appearance	As soldered				
SN100C						
Sn-0.7Cu						
Sn-3.8Ag-0.7Cu						

[Test conditions] Temperature: -45 15mins dwell / +125 25mins dwell, Board: FR-4 Immersion tin finish



Cracks appeared in the Sn-3.8Ag-0.7Cu joints after 2000 cycles with complete failure after 4000 cycles. No major cracks appeared in Sn-0.7Cu until 3000 cycles and until 4000 cycles for SN100C. The conclusion is that SN100C has excellent resistance to thermal fatigue.