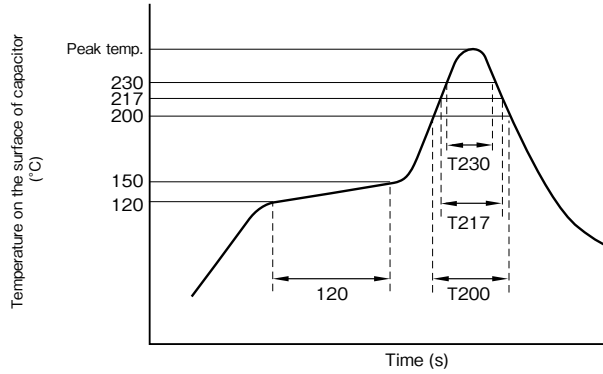


## Recommended soldering conditions (Lead Free)

- Series CS1, CSK, CVN, CVL, CVS

Reflow soldering conditions.

Profile



1. Preheating shall be under 150°C within 120 seconds.
2. Peak temperature shall be within the following table.
3. For conditions exceeding the tolerances, consult with us.

T200 : Duration while capacitor head temperature exceeds 200°C (s).

T217 : Duration while capacitor head temperature exceeds 217°C (s).

T230 : Duration while capacitor head temperature exceeds 230°C (s).

The measurement temperature point is the case top.

Series	Size	Peak temp. (5sec or less)	T230	T217	T200	Reflow cycle
CS1 CSK	φ6.8	250°C Max.	20sec. max.	30sec. max.	40sec. max.	2 times or less
CVN CVL CVS	φ12.5	260°C Max.	20sec. max.	30sec. max.	50sec. max.	2 times or less

Attention : Carry out soldering work at low temperature and in the shortest time within above conditions.

Do NOT reflow solder, when cell voltage is above 0.5V.

\* Please consult with us about reflow soldering conditions other than the above.

## Recommended soldering conditions (Lead free)

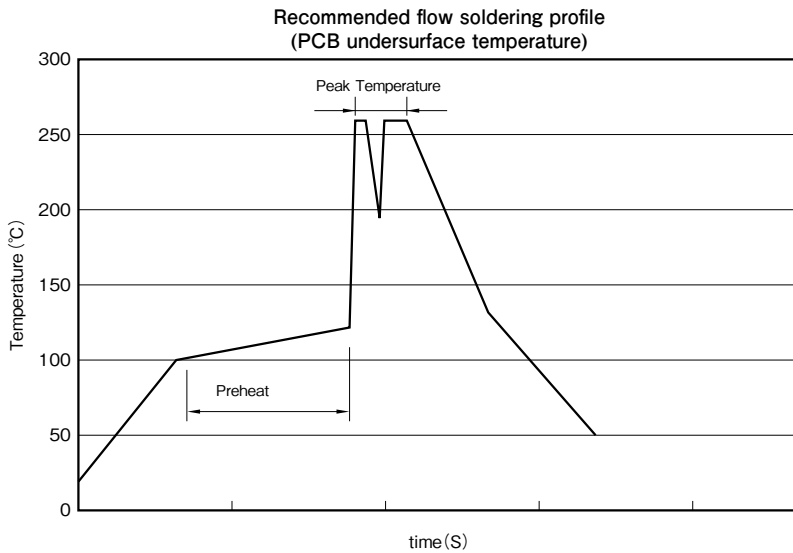
### ● Electric Double Layer capacitors

(1) Soldering iron conditions

Iron tip temperature should be  $400^{\circ}\text{C} \pm 5^{\circ}\text{C}$  within the duration of 4 seconds.

(2) Flow soldering conditions

The recommendation soldering conditions of the product in which flow soldering is possible are as graph.



Type	Series	Size	Preheat		Peak	
			Temperature	Time	Temperature	Time
Coin cell	CB1, CBN, CBJ CBS, CX, CXN CXJ, CXS, CH1 CHL, CHC	$\phi 11.5$ to $\phi 21.5$	100 to $110^{\circ}\text{C}$	30sec. max.	$260^{\circ}\text{C}$ Max	5sec. max.
Cylindrical cell	DZ1, DZH, DZN GZ1, GZH, GZN DDU, DUK, DZP	$\phi 6.3$ to $\phi 35$	100 to $130^{\circ}\text{C}$	30 to 60sec.	$260^{\circ}\text{C} \pm 5^{\circ}\text{C}$	10sec. max.

### Cautions when soldering

- (1) Do not dip the capacitor into melted solder.
- (2) Do not flux other part than the terminals.
- (3) If there is a direct contact between the sleeve of the capacitor and the printed circuit pattern or a metal part of another component such as a lead wire, it may cause shrinkage or crack.
- (4) If it is a coin type, please manage so that main part temperature including preheating does not exceed  $90^{\circ}\text{C}$ .
- (5) Please refer to cautions for using and the specification about other notes.