

HANDLING PRECAUTIONS

Soldering

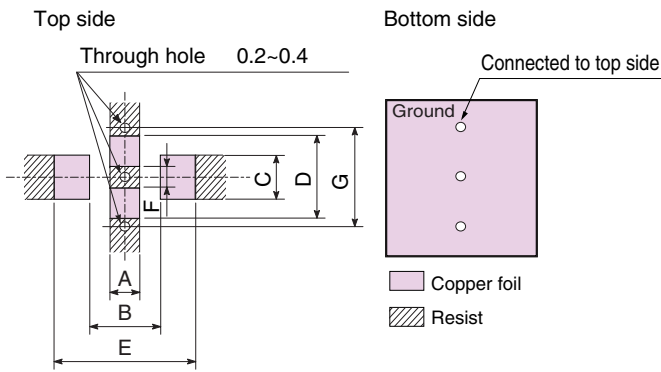
1. Basic design

Recommended board pattern.

[LCF • CNF • CNH series]

Reflow soldering

Unit : mm

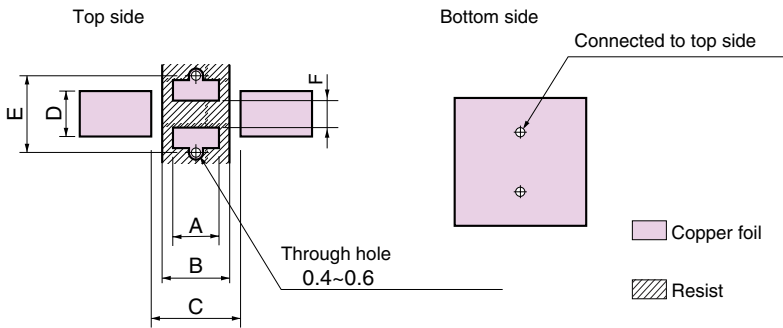


Type	CNF10 CNH10	LCF20 CNF20 CNH20	CNF31 CNH31	CNH30	LCF41 CNF41 CNH41
Style	1.6×0.8	2.0×1.25	3.2×1.25	3.2×1.6	4.5×1.6
A	0.5	0.6	1.3	1.3	2.0
B	1.2	1.5	2.3	2.3	3.5
C	0.8	1.0	1.2	1.3	1.3
D	1.5	1.9	2.0	2.5	2.5
E	2.4	2.8	4.0	4.0	5.5
F	0.4	0.6	0.6	0.8	0.8
G	1.8	2.5	2.6	3.1	3.3

LCF20,CNF10,CNH10,CNF20,CNH20 types are used exclusively for reflow soldering.

Flow soldering

Unit : mm



Type	CNF31 CNH31	CNH30	CNF41 CNH41
Style	3.2×1.25	3.2×1.6	4.5×1.6
A	1.3	1.3	1.5
B	1.5	1.5	2.0
C	2.3	2.3	3.5
D	1.2	1.3	1.3
E	3.0	3.0	3.0
F	0.6	0.6	0.6

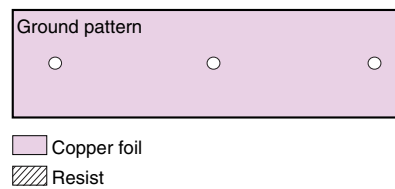
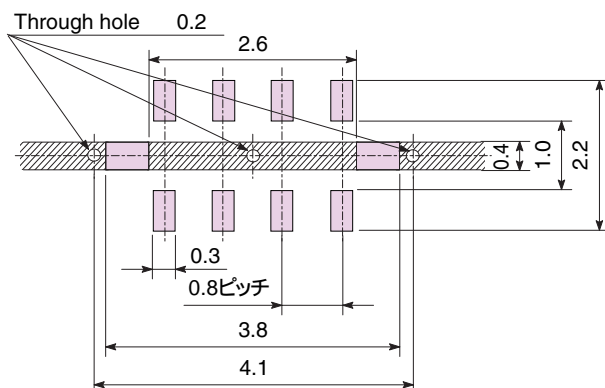
[CNA30 series]

Reflow soldering

*The CNA30 Series is used exclusively for reflow soldering.

Top side

Bottom side

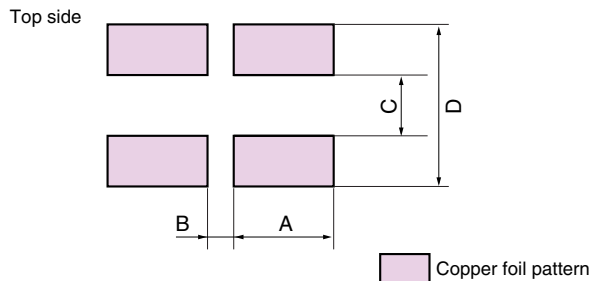


HANDLING PRECAUTIONS

[CNX series]

Reflow soldering

*The CNX Series is used exclusively for reflow soldering.



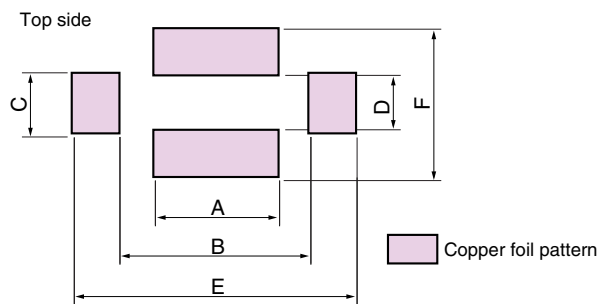
Unit : mm

Type	CNX41
Style	4.5×1.6
A	1.8
B	0.5
C	1.2
D	3.2

[CNG series]

Reflow soldering

*The CNG Series is used exclusively for reflow soldering.



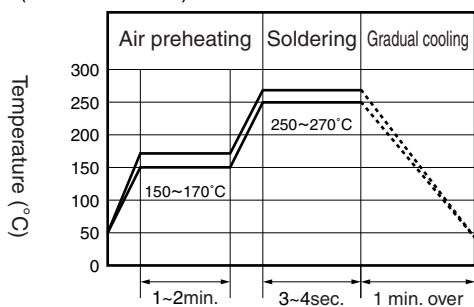
Unit : mm

Type	CNG41
Style	4.5×1.6
A	2.7
B	4.1
C	1.3
D	1.2
E	6.1
F	3.2

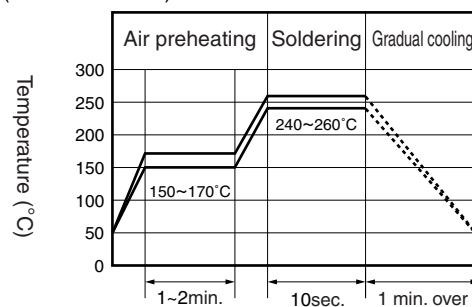
2. General cautions for soldering

- (1) High soldering temperature and long soldering time can cause leaching of the termination, decrease in adhesion strength, and a drop in capacitance value, etc.
- (2) For soldering, please refer to the soldering curves below.

Flow soldering (air preheating) recommended conditions
(Lead-free solder)



Reflow soldering recommended conditions
(Lead-free solder)



- (3) Please use a mild flux (containing less than 0.2wt% Cl). Also, if the flux is water soluble, be sure to wash thoroughly to remove any residue from the underside of components that could affect resistance.

3. Cleaning

When using ultrasonic cleaning, the board may resonate if the output power is too high. Because this vibration can cause cracking or decrease in the adherence of the termination, we recommend the conditions below.

Frequency : 28kHz
Output power : 20W/liter
Cleaning time : 5 minutes max.

■Storage / keeping

- (1) Deterioration of solderability can be caused by oxidization/sulfurization because of high temperature, high humidity or chlorine/sulfur gas. Parts should be used within 6 months if possible and stored below 40°C and 70% RH in an atmosphere free of sulfur, chlorine or toxic gasses.
- (2) These EMI filters are made of ceramics. Avoid dropping or other mechanical shock that could damage the parts.
- (3) The inductors kept in your storage for over 6 months should be use only after checking solderability.