PRODUCT SPECIFICATION

SPEC. NO: T-0622-063

新弘智

DATE:Jul.26,2018

CUSTOMER'S PRODUCT NAME:

EMTEK PRODUCT NAME:

LCF1206-Series

THIS SPECIFICATION IS:

- ☐ FULLY ACCEPTED
- ☐ DENIED
- ☐ ACCEPTED UNDER THE FOLLOWING CONDITIONS

RoHS COMPLIANT

SIGNATURE: DATE:

NAME(PRINT):

TITLE:

EMTEK CO., LTD.

FACTORY:
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FAX: 03-5894-523

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1. Scope

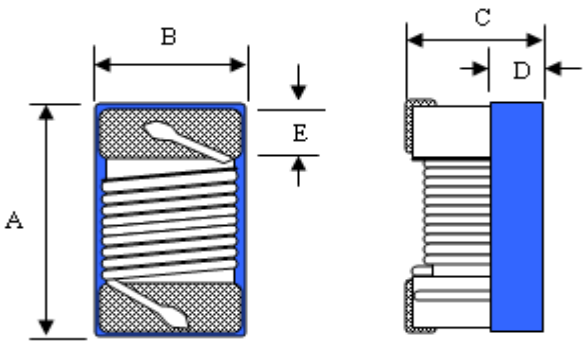
This specification applies Ceramic Chip Inductance LCF1206-Series to be delivered to user.

2. Product Identification

LCF 1206 - 3R3 □ - T
(1) (2) (3) (4) (5)

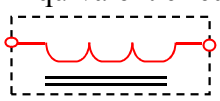
(1) Dimemsion
(2) Type
(3) Inductance
3R3 :3300 nH
(4) Tolerance
J=±5%，K=±10%
(5) Taping Type

3. Shapes and Dimensions



A max. : 3.56 mm
B max. : 2.16 mm
C max. : 1.52 mm
D ref. : 0.51 mm
E : 0.51±0.1 mm

Equivalent circuit



No Polarity

Drawn by	Checked by	Approved by
Cindy Jul.5.2017	Thery Jul.5.2017	Dragon Jul.5.2017

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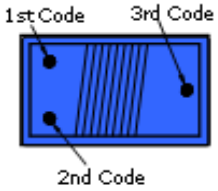
4. Electrical Characteristics

Customer Part Number	Our Product Part Number	Inductance (nH)/MHz	Inductance Tolerance	Q /MHz Min.	SRF (MHz) Min.	Rdc (Ω) Max.	Idc (mA) Min.	Irms (mA) Min.	Color Coding		
									1st	2nd	3rd
	LCF1206-3R3□-T	3300/7.9	J,K	25/7.9	240	1.32	400	450	Orange	Orange	Red

1. All specifications are calibrated with Coilcraft 1206 series
2. When ordering, please specify tolerance and packaging codes. Ex: LCF1206-3R3J-T
   Tolerance :J = ±5% ，K=±10%
   Packaging : Clear tape and reel { standard }. *
3. L , Q , SRF: Agilent E4991A RF Impedance/Material Analyzer+ Agilent 16197A Test Fixtures
   (The electrical specification test by the smallest gap position), or equivalent
4. Rdc : Chroma 16502 Milliohm meter, or equivalent.
5. Irms for a 25℃ rise above 25℃ ambient.
6. Operating temperature range from -40℃ to 125℃.
   * Parts/Reel: 7" 2,000 Tape Width: 8mm
7. Idc for Inductance drop 10% from its value without current.



COLOR CODING

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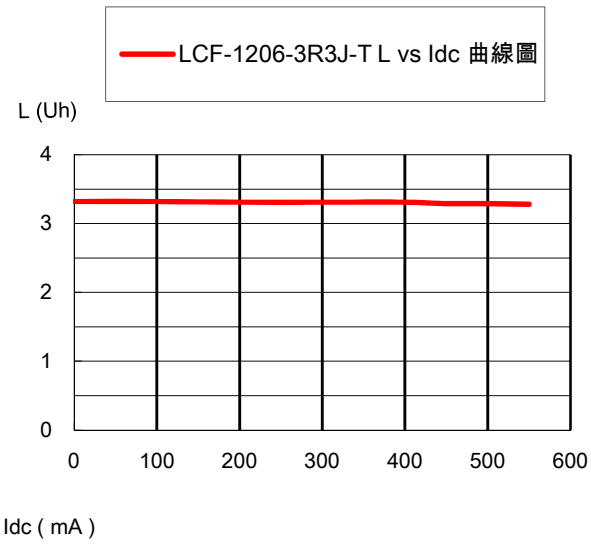

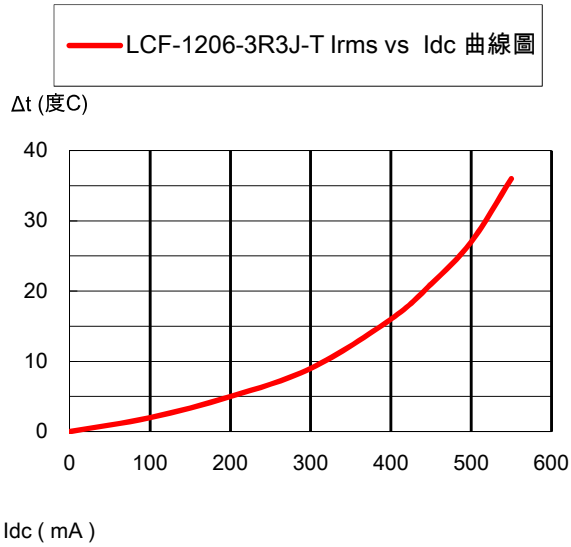

5. Material list

Item	Material
Core	Al_2O_3 96%
Wire	Copper wire
Epoxy	UV Epoxy

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6. Reliability Test

Item	Specifications	Test conditions
Solderability	The metalized area must have 90% minimum solder coverage.	Dip pads in flux and dip in solder pot(96.5 Sn/3.5 Ag solder) at 255°C ±5°C.
Resistance to soldering heat	There must be no case deformation or change in dimensions. Inductance must not change more than the stated tolerance.	Inductors shall be reflowed onto a PC board using 96.5 Sn/3.5 Ag solder paste. Solder process shall be at a maximum temperature of 260°C. For 96.5 Sn/3.5 Ag solder paste:>217°C for 90 seconds
Vibration	There must be no case deformation or change in dimensions. Inductance must not change more than the stated tolerance.	Solder specimen inductor on the test printed circuit board. Apply vibrations in each of the x,y and z directions for 2 hours for a total of 6 hours. Frequency : 10~50 Hz Amplitude : 1.5mm
High temperature resistance	There must be no case deformation or change in dimensions. Inductance must not change more than the stated tolerance.	Inductors shall be subjected to temperature 125±2℃ for 50±12 hours. Measure the test items after leaving the inductors at room temperature and humidity for 2 hours.
Static Humidity	Inductors must not have a shorted or openwinding.	Inductors shall be subjected to temperature 85±2℃ and 90 to 95%RH. for ten 24-hours. Measure the test items after leaving the inductors at room temperature and humidity for 2 hours.
Component adhesion (push test)	Inductors shall be subjected to 1.0Kg	Inductors shall be reflow soldered (255°C ±5°C for 10 seconds) to a tinned copper substrate. A force gauge shall be applied to the side of the component. The device must withstand the stated force without a failure of the termination.

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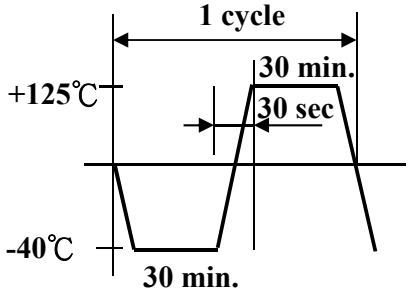
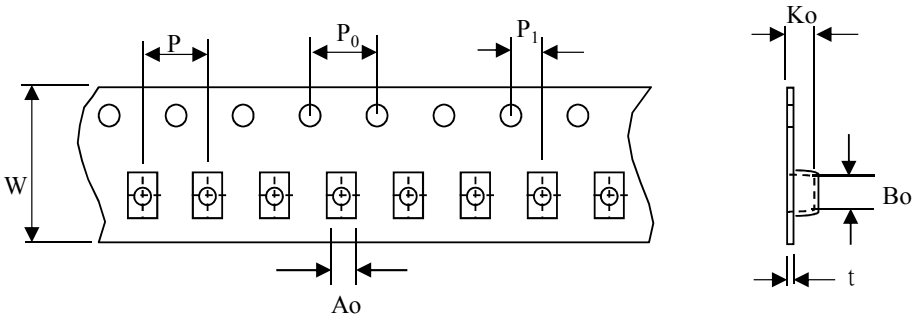
Item	Specifications	Test conditions
Low temperature resistance	There must be no case deformation or change in dimensions. Inductance must not change more than the stated tolerance.	Inductors shall be subjected to temperature -40±2℃ for 48±12 hours. Measure the test items after leaving the inductors at room temperature and humidity for 1 to 2 hours.
Resistance to solvent	There must be no case deformation, change in dimensions, or obliteration of marking.	Inductors must withstand 6 minutes of alcohol or water.
Thermal shock	There must be no case deformation or change in dimensions. Inductance must not change more than the stated tolerance.	Inductors shall be subjected to 10 cycles to the the following temperature cycle:  Measure the test items after leaving the inductors at room temperature and humidity for 2 hours.

7.Packaging

The packaging must be done not to receive any damage during transporting and storing.

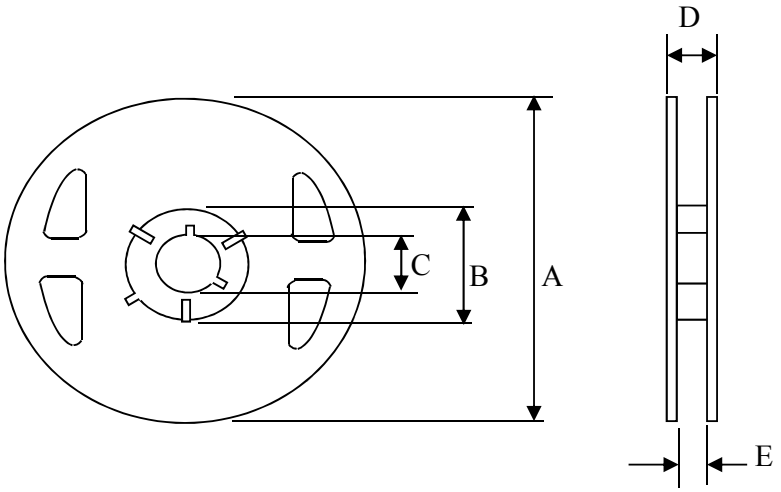
7-1 Tape dimensions



(Dimensions in mm)

Symbol	W	P	P_0	P_1	Ao	Bo	Ko	t
Dimension	8	4	4	2	2.14	3.56	1.5	0.22
Tolerance	±0.10	±0.10	±0.10	±0.10	±0.05	±0.05	±0.05	±0.05

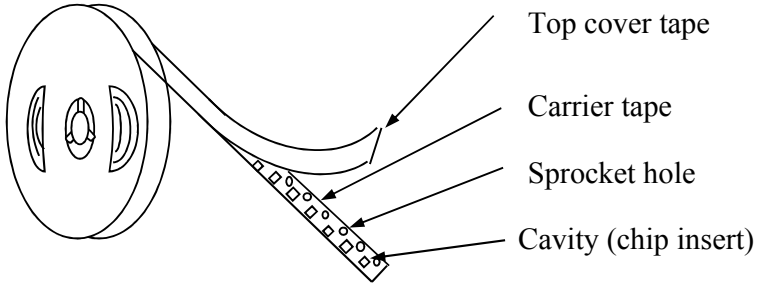
7-2 Reel dimensions



(Dimensions in mm)

Symbol	T
A	180
B	60
C	13
D	14.4
E	8.4

7-3 Tapping figure



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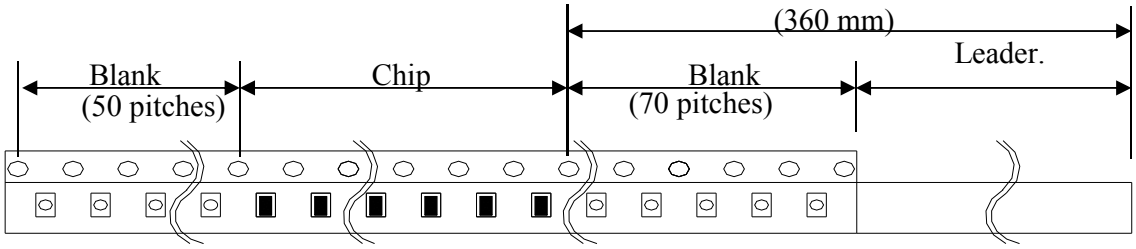
7-4 Packaging Form

There shall not continuation more than two vacancies of the product.



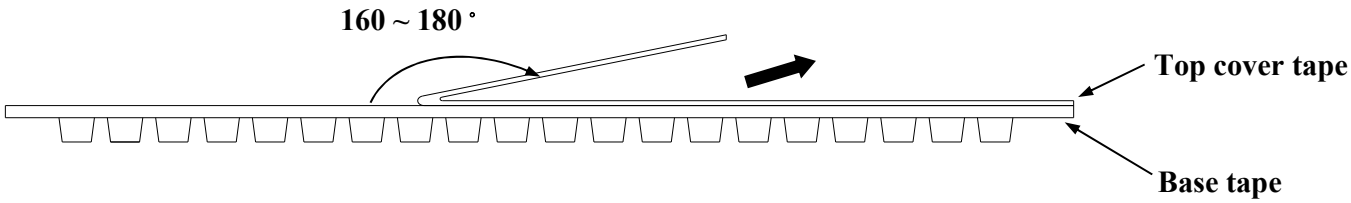
7-5 Cover Tape Peel Strength

The force for tearing off cover tape is 0.1~0.6(N) in the arrow direction at the following conditions:

Temperature : 5 ~ 35℃

Humidity : 45 ~ 85%

Atmospheric pressure : 860 ~ 1060 hpa



7-6 Packing Quantity

φ180 mm reel type : 2,000 pcs./reel

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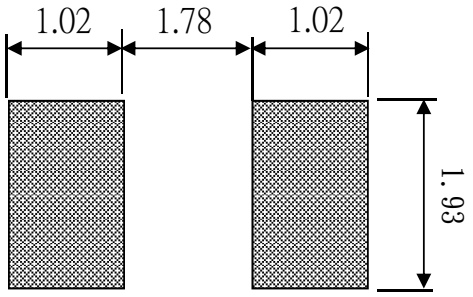
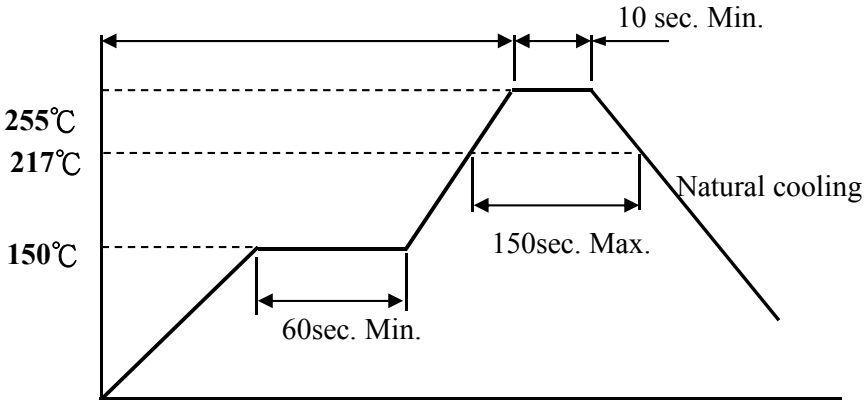
8. Recommended Soldering Conditions (Please use this product by reflow soldering)

8-1 Recommended Footprint



8-2 Recommended Reflow Pattern

Reflow : until two times



8-3 Iron Soldering

Use a solder iron of less than 30W when soldering ,do not allow the soldering iron tip directly touch the Ceramic body outside of terminal electrode.

4 seconds max. at 260℃.

9. Attention in Case of Using

In case of using product ,please avoid following matters:

Splashing water or salt water

Dew condenses

Toxic gas (Hydrogen sulfide, Sulfurous acid ,Chlorine, Ammonia)

Vibrations or shocks which exceed the specified condition

Please be careful for the stress to this product by board flexure or something after the mounting.

10. Others

10-1 Operating temperature range : Ferrite Series : -25~＋85℃

Ceramic Series : -40~+125℃

10-2 Storage condition : Temperature 20°~25℃, Relative Humidity 40%~60%

10-3 Recommended wire wound inductors should be used within 6 months from the time of delivery.