



◆ Features

1. Magnetic-resin shielded construction reduces buzz noise to ultra-low levels;
2. Metallization on ferrite core results in excellent shock resistance and damage-free durability;
3. Closed magnetic circuit design reduces leakage
4. Small and low profile inductor;
5. Take up less PCB real estate and save more power.



◆ Applications

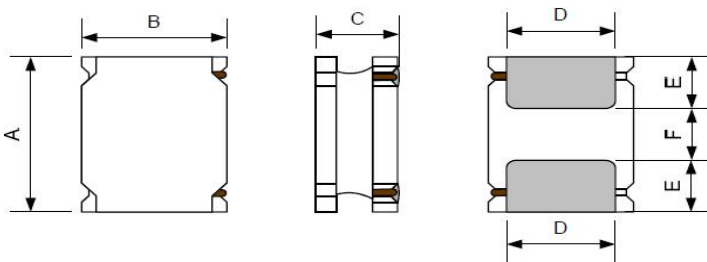
1. Smart phone;
2. Mobile devices with multifunction such as adding color TV and camera;
3. Flat-screen TVs, blue-ray disc recorders, set top boxes;
4. Notebooks, desktop computers, servers, graphic cards;
5. Portable gaming devices, personal navigation systems, personal multimedia devices;
6. Automotive systems;
7. Telecomm base stations.

◆ Lead Free Part Numbering

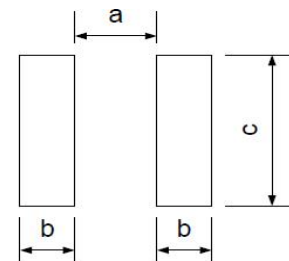
CMLW 201610 P 2R2 M S T
(1) (2) (3) (4) (5) (6) (7)

- (1) Series Type
- (2) Dimension : L×W×H(2.0×1.6×1.0mm)
- (3) Material Code
- (4) Inductance: 2R2=2.2μH ;
100=10μH; 101=100μH
- (5) Inductance Tolerance: M=±20%, N=±30%
- (6) Company Code
- (7) Packaging : Tape Carrier Package

◆ Dimensions



Recommended Land Pattern



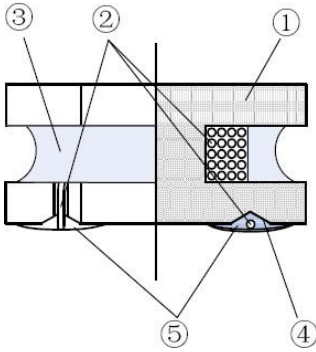
Unit:mm

Series	A	B	C	D	E	F	a Typ.	b Typ.	c Typ.
CMLW201610P	2.0±0.2	1.6±0.2	1.0Max.	1.2±0.2	0.60±0.2	0.80±0.2	0.70	0.70	1.7

◆ Electrical Characteristics

- 1) Operating temperature range (Including self-heating) : -40°C ~ +125°C
- 2) Storage temperature range (packaging conditions): -10°C~+40°C and RH 70% (Max.)

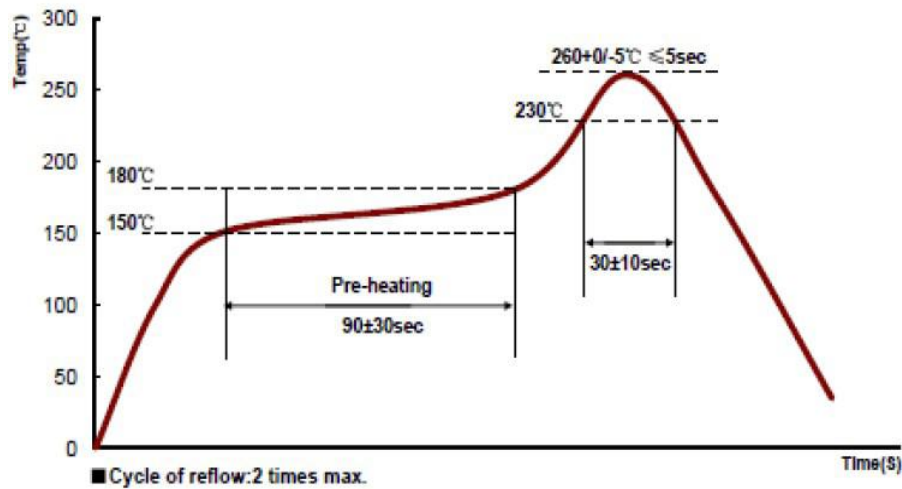
◆ Construction and material



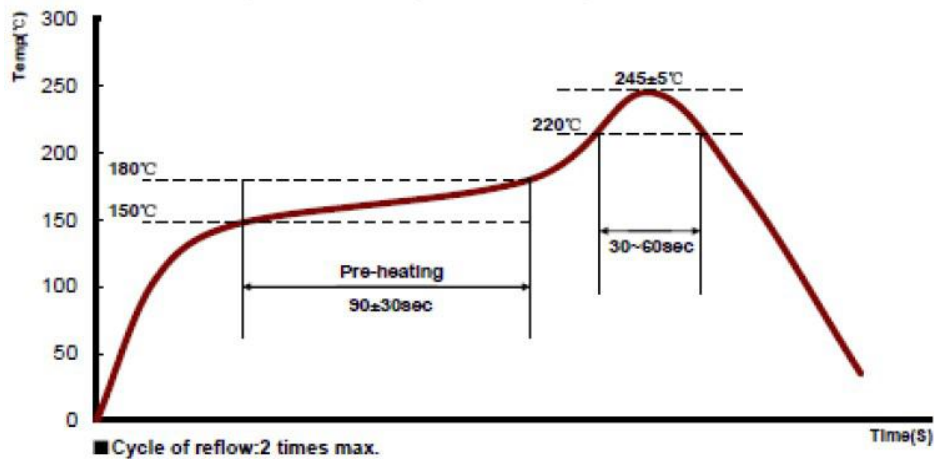
No.	Components	Material
①	Core	Soft magnetic Metal
②	Wire	Polyurethane system enameled copper wire
③	Magnetic Glue	Epoxy resin and magnetic powder
④	substrate	FeNiCu/Ag or Ag/Ni/Sn
⑤	Top Electrodes	Sn alloy
⑥	Marking	Nitrocellulose

◆ REFLOW-PROFILE

Limit Profile



Standard Profile (for EOC Solder paste S70G-HF)



◆ Specification

Part Number	Inductance @100KHz, 1V (μ H)	DC Resistance($m\Omega$)		Saturation Current Isat		Heat Rating Current Irms	
		DCR		Min. (A)	Typ. (A)	Min. (A)	Typ. (A)
		Typ.	Max.				
CMLW201610P Series							
CMLW201610PR24MST	0.24 \pm 20%	33.0	40.0	4.50	5.50	3.00	3.45
CMLW201610PR47MST	0.47 \pm 20%	41.0	49.0	4.00	4.70	2.70	3.10
CMLW201610PR68MST	0.68 \pm 20%	57.0	65.0	3.50	4.00	2.50	2.80
CMLW201610P1R0MST	1.0 \pm 20%	75.0	90.0	2.60	2.80	2.05	2.35
CMLW201610P1R5MST	1.5 \pm 20%	110	130	1.95	2.30	1.70	2.00
CMLW201610P2R2MST	2.2 \pm 20%	142	170	1.90	2.15	1.45	1.45
CMLW201610P4R7MST	4.7 \pm 20%	370	425	1.20	1.50	0.90	0.90
CMLW201610P6R8MST	6.8 \pm 20%	500	600	1.10	1.40	0.70	0.80
CMLW201610P100MST	10 \pm 20%	688	826	0.80	0.95	0.65	0.65

Note

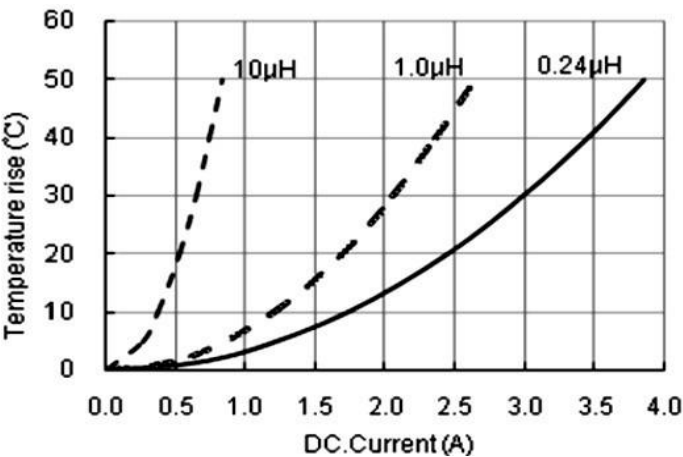
- 1 : All test data is referenced to 20°C ambient;
- 2 : Rated current: Isat or Irms, whichever is smaller; (Δ)
- 3 : Isat: DC current at which the inductance drops approximate 30% from its value without current;
- 4 : Irms: DC current that causes the temperature rise $T = 40^\circ\text{C}$) from 20°C ambient.

◆ Standard Packing Quantity: 2000 pcs/reel

◆ TYPICAL ELECTRICAL CHARACTERISTICS

CMLW201610P Series

Temperature vs.DC Current Characteristics



Inductance vs.DC Current Characteristics

