



◆ **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 flux and Electro Magnetic Interference (EMI);
- 4、30% higher current rating than conventional inductors of equal size;
- 5、Take up less PCB real estate and save more power.



◆ **Applications**

- 1、LED Lighting;
- 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

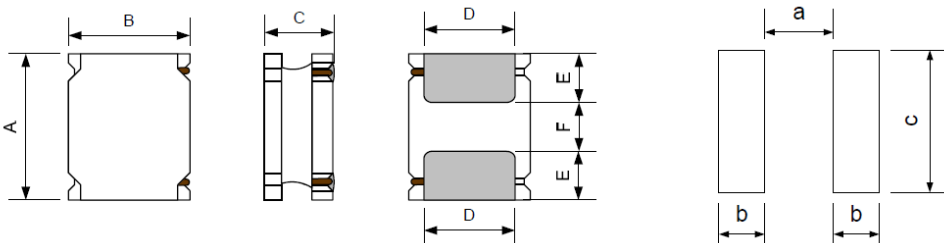
◆ **Lead Free Part Numbering**

CMLW 4030 S 100 M S T
(1) (2) (3) (4) (5) (6) (7)

- (1) Series Type
- (2) Dimension: L X H
- (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.
CMLW4030S	4.0±0.2	4.0±0.2	3.0Max.	3.3±0.2	0.95±0.2	2.10±0.2	1.9	1.1	3.7

◆ **Electrical Characteristics**

- 1) Operating and storage temperature range (individual chip without packing): cking): $-25^{\circ}\text{C} \sim +125^{\circ}\text{C}$
- 2) Storage temperature range (packaging conditions): $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$ and RH 70% (Max.)

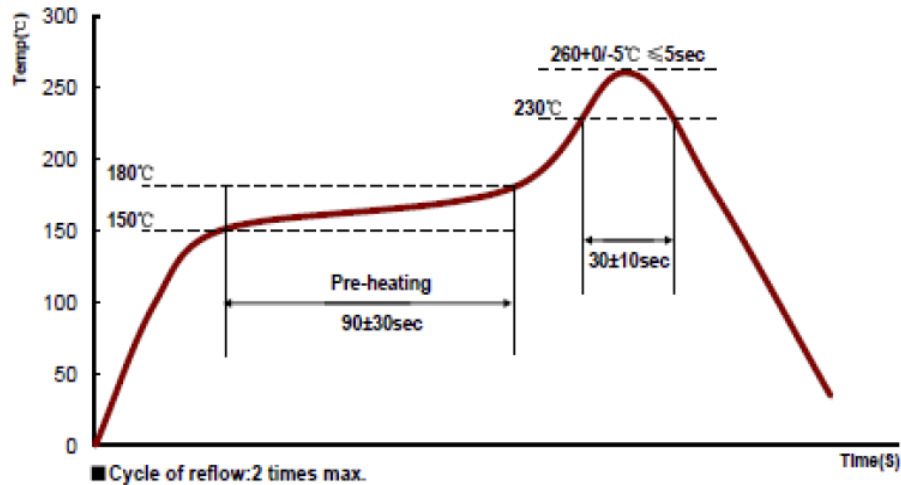
◆ **Construction and material**



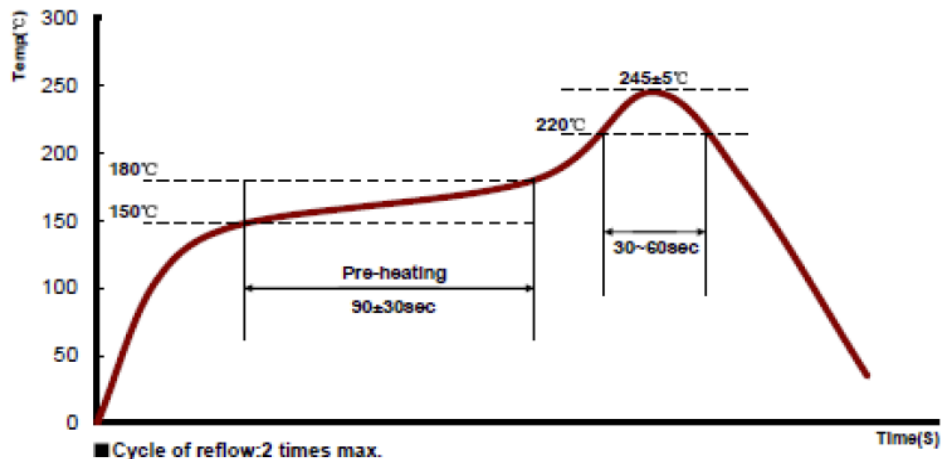
Code	Part Name	Material Name
①	Ferrite Core	Ni-Zn Ferrite
②	Wire	Polyurethane system enameled copper wire
③	Magnetic Glue	Epoxy resin and magnetic powder
④	Plating Electrodes	Ag
		Ni
		Sn
⑤	Outer Electrodes	Top surface solder coating Sn、Ag、Cu

◆ **REFLOW-PROFILE**

Limit Profile



Standard Profile (for EOC Solder paste S70G-HF)



◆ Specification

Part Number	Inductance @100KHz, 1V (μ H)	DC Resistance $\pm 30\%$ (Ω)	Min.Self-resonant Frequency (MHz)	Saturation Current(A)	Heat Rating Current (A)
		DCR	S.R.F	Isat	Irms
CMLW4030S Series					
CMLW4030SR68NST	0.68 $\pm 30\%$	0.010	130	6.80	4.56
CMLW4030S1R0NST	1.0 $\pm 30\%$	0.014	70	5.26	4.15
CMLW4030S1R5NST	1.5 $\pm 30\%$	0.020	62	5.14	3.34
CMLW4030S2R2MST	2.2 $\pm 20\%$	0.030	52	4.90	2.95
CMLW4030S3R3MST	3.3 $\pm 20\%$	0.040	38	3.30	2.40
CMLW4030S4R7MST	4.7 $\pm 20\%$	0.060	31	2.90	2.00
CMLW4030S5R6MST	5.6 $\pm 20\%$	0.065	30	2.60	1.95
CMLW4030S6R8MST	6.8 $\pm 20\%$	0.090	24	2.75	1.60
CMLW4030S100MST	10 $\pm 20\%$	0.100	21	1.95	1.50
CMLW4030S120MST	12 $\pm 20\%$	0.135	18	1.70	1.30
CMLW4030S150MST	15 $\pm 20\%$	0.190	16	1.65	1.11
CMLW4030S180MST	18 $\pm 20\%$	0.200	10	1.40	1.10
CMLW4030S220MST	22 $\pm 20\%$	0.225	10	1.30	1.00
CMLW4030S330MST	33 $\pm 20\%$	0.330	10	1.10	0.84
CMLW4030S470MST	47 $\pm 20\%$	0.445	8.4	0.95	0.72
CMLW4030S560MST	56 $\pm 20\%$	0.555	8.4	0.85	0.65
CMLW4030S680MST	68 $\pm 20\%$	0.868	7	0.72	0.52
CMLW4030S750MST	75 $\pm 20\%$	1.020	6.3	0.70	0.48
CMLW4030S820MST	82 $\pm 20\%$	1.060	5.6	0.66	0.47
CMLW4030S101MST	100 $\pm 20\%$	1.150	5.6	0.60	0.45
CMLW4030S121MST	120 $\pm 20\%$	1.350	5.4	0.55	0.42
CMLW4030S151MST	150 $\pm 20\%$	1.800	4	0.50	0.30
CMLW4030S471KT	470 $\pm 10\%$	7.200	2	0.30	0.20
CMLW4030S681MST	680 $\pm 20\%$	7.580	1.2	0.19	0.14

◆ Note

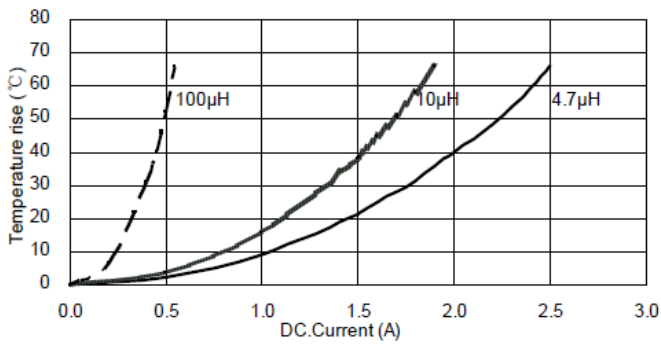
- 1: All test data is referenced to 20°C ambient;
- 2: Rated current: Isat or Irms, whichever is smaller;
- 3: Isat: DC current at which the inductance drops approximate 30% from its value without current;
- 4: Irms: DC current that causes the temperature rise ($\Delta T = 40^\circ\text{C}$) from 20°C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

◆ Standard Packing Quantity: 2000 pcs/reel

◆ TYPICAL ELECTRICAL CHARACTERISTICS

CMLW4030 Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics

