



◆ **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**

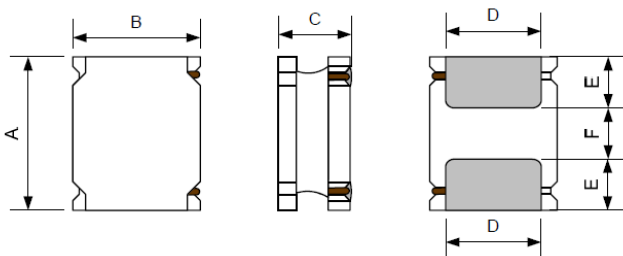
- 1、LED Lighting;
- 2、Mobile devices with multifunction such as adding color TV and camera;
- 3、Flat-screen TVs, blue-ray disc recorders, set top boxes;
- 4、Notebooks, desktop computers, servers, graphic cards;
- 5、Portable gaming devices, personal navigation systems, personal multimedia devices;
- 6、Automotive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

◆ **Lead Free Part Numbering**

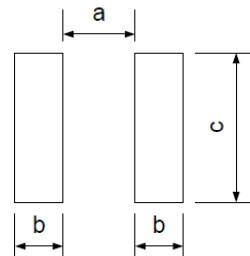
**CMLW 8040 S 100 M S T**  
**(1) (2) (3) (4) (5) (6) (7)**

- (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



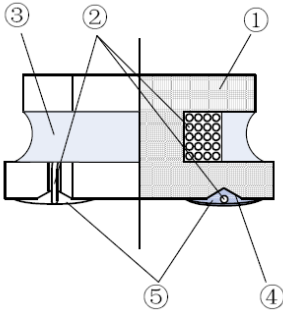
Unit:mm

Series	A	B	C	D	E	F	a Typ.	b Typ.	c Typ.
CMLW8040S	8.0±0.3	8.0±0.3	4.2Max.	6.3±0.3	2.00±0.3	4.00±0.3	3.8	2.2	7.5

◆ **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.)

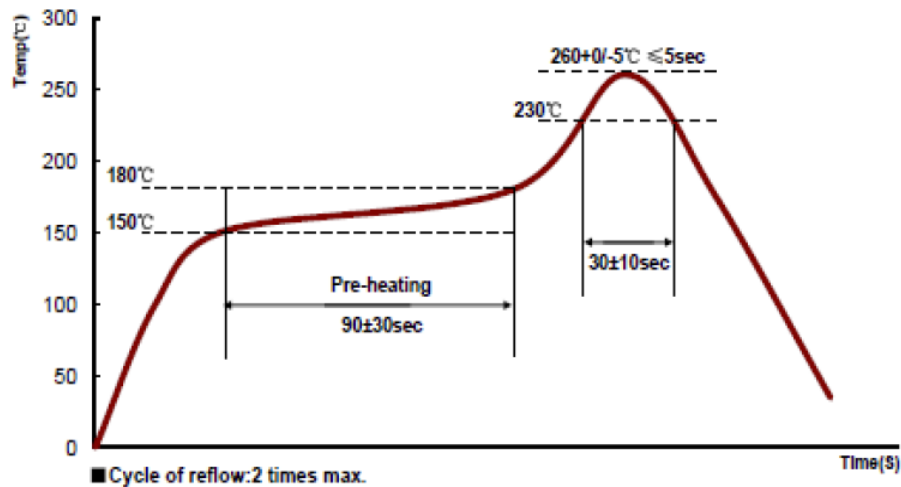
◆ **Construction and material**



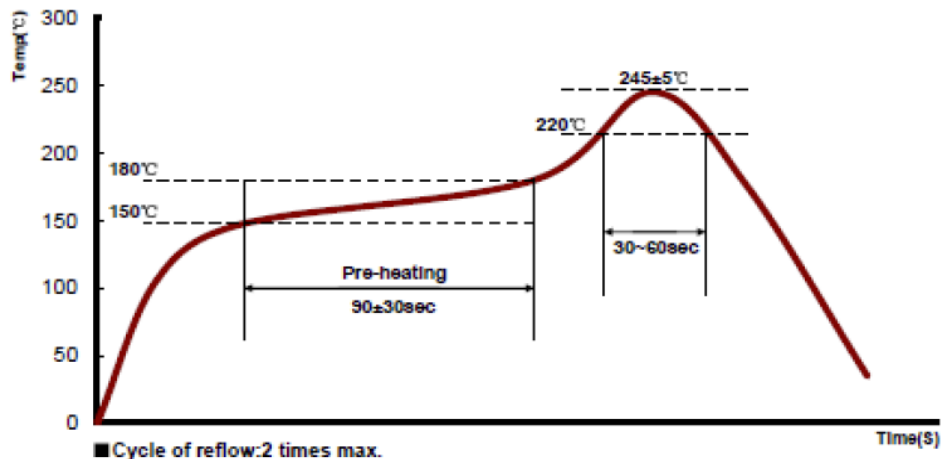
Code	Part Name	Material Name
①	Ferrite Core	Ni-Zn Ferrite
②	Wire	Polyurethane system enameled copper wire
③	Magnetic Glue	Epoxy resin and magnetic powder
④	Plating Electrodes	Ag
		Ni
		Sn
⑤	Outer Electrodes	Top surface solder coating Sn、Ag、Cu

◆ **REFLOW-PROFILE**

**Limit Profile**



**Standard Profile (for EOC Solder paste S70G-HF)**



◆ Specification

Part Number	Inductance @100KHz, 1V ( $\mu$ H)	DC Resistance $\pm 30\%$ ( $\Omega$ )	Min.Self-resonant Frequency (MHz)	Saturation Current(A)	Heat Rating Current (A)
		DCR	S.R.F	Isat	Irms
<b>CMLW8040S Series</b>					
CMLW8040SR82NST	0.82 $\pm$ 30%	0.008	94	13.80	6.30
CMLW8040S1R0NST	1.0 $\pm$ 30%	0.008	89	9.85	6.30
CMLW8040S1R5NST	1.5 $\pm$ 30%	0.010	67	8.15	5.65
CMLW8040S2R2MST	2.2 $\pm$ 20%	0.012	41	7.10	5.15
CMLW8040S3R3MST	3.3 $\pm$ 20%	0.017	27	6.50	4.40
CMLW8040S4R7MST	4.7 $\pm$ 20%	0.019	24	5.90	4.10
CMLW8040S5R6MST	5.6 $\pm$ 20%	0.021	24	6.00	3.85
CMLW8040S6R8MST	6.8 $\pm$ 20%	0.024	20	4.55	3.60
CMLW8040S8R2MST	8.2 $\pm$ 20%	0.026	17	4.20	3.45
CMLW8040S100MST	10 $\pm$ 20%	0.029	15	3.60	3.30
CMLW8040S150MST	15 $\pm$ 20%	0.047	12	2.95	2.60
CMLW8040S220MST	22 $\pm$ 20%	0.069	9.5	2.40	2.10
CMLW8040S330MST	33 $\pm$ 20%	0.097	7.8	2.05	1.80
CMLW8040S470MST	47 $\pm$ 20%	0.136	6.4	1.75	1.55
CMLW8040S560MST	56 $\pm$ 20%	0.148	6.4	1.55	1.45
CMLW8040S680MST	68 $\pm$ 20%	0.196	4.9	1.45	1.25
CMLW8040S101MST	100 $\pm$ 20%	0.290	4.2	1.15	1.00
CMLW8040S121MST	120 $\pm$ 20%	0.334	3.5	1.05	0.95
CMLW8040S151MST	150 $\pm$ 20%	0.410	3.5	1.10	0.85
CMLW8040S221MST	220 $\pm$ 20%	0.599	3.5	0.85	0.80
CMLW8040S331MST	330 $\pm$ 20%	0.889	2.8	0.68	0.64

◆ Note

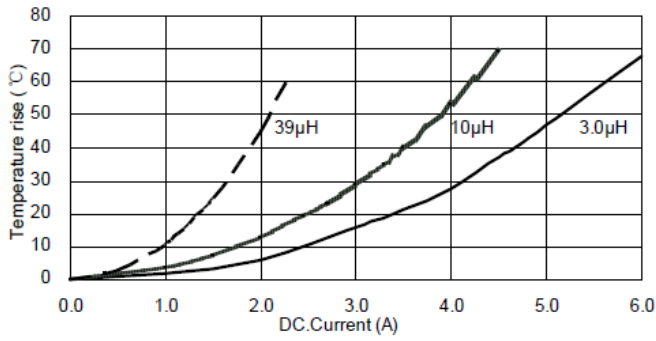
- 1: All test data is referenced to 20°C ambient;
- 2: Rated current: Isat or Irms, whichever is smaller;
- 3: Isat: DC current at which the inductance drops approximate 30% from its value without current;
- 4: Irms: DC current that causes the temperature rise ( $\Delta T = 40^\circ\text{C}$ ) from 20°C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

◆ Standard Packing Quantity: 1000 pcs/reel

◆ TYPICAL ELECTRICAL CHARACTERISTICS

**CMLW8040S Series**

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics

