



◆ **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**

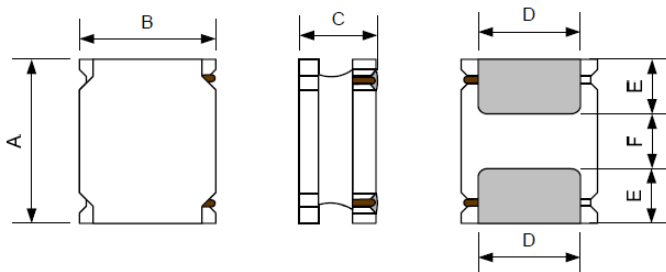
- 1、LED Lighting;
- 2、Mobile devices with multifunction such as adding color TV and camera;
- 3、Flat-screen TVs, blue-ray disc recorders, set top boxes;
- 4、Notebooks, desktop computers, servers, graphic cards;
- 5、Portable gaming devices, personal navigation systems, personal multimedia devices;
- 6、Automotive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

◆ **Lead Free Part Numbering**

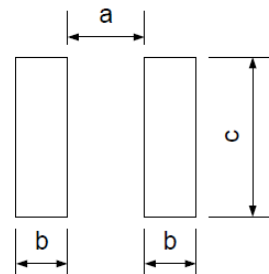
**CMLW 3010 S 100 M S T**  
**(1) (2) (3) (4) (5) (6) (7)**

- (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



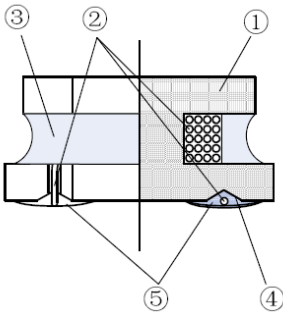
Unit:mm

Series	A	B	C	D	E	F	a Typ.	b Typ.	c Typ.
CMLW3010S	3.0±0.2	3.0±0.2	1.0Max.	2.5±0.2	0.75±0.2	1.50±0.2	1.5	0.8	2.7

◆ **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**



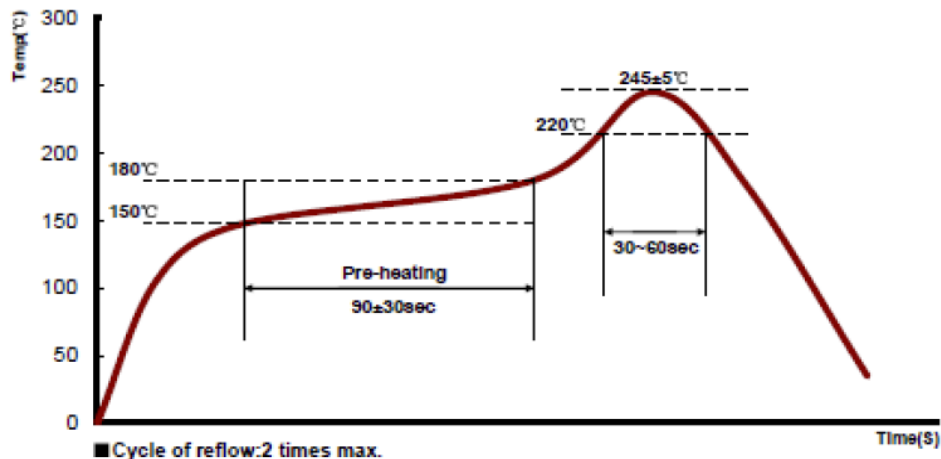
Code	Part Name	Material Name
①	Ferrite Core	Ni-Zn Ferrite
②	Wire	Polyurethane system enameled copper wire
③	Magnetic Glue	Epoxy resin and magnetic powder
④	Plating Electrodes	Ag
		Ni
		Sn
⑤	Outer Electrodes	Top surface solder coating Sn、Ag、Cu

◆ **REFLOW-PROFILE**

**Limit Profile**



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



◆ **Specification**

Part Number	Inductance @100KHz, 1V (μH)	DC Resistance	Min.Self-resonant Frequency (MHz)	Saturation Current(A)	Heat Rating Current (A)
		±30% (Ω) DCR	S.R.F	Isat	Irms
<b>CMLW3010S Series</b>					
CMLW3010S1R0MST	1.0±30%	0.056	180	1.89	1.81
CMLW3010S1R5MST	1.5±30%	0.068	120	1.71	1.63
CMLW3010S2R2MST	2.2±30%	0.095	100	1.55	1.36
CMLW3010S3R3MST	3.3±30%	0.124	74	1.31	1.20
CMLW3010S4R7MST	4.7±20%	0.193	59	1.03	0.96
CMLW3010S6R8MST	6.8±20%	0.261	42	0.89	0.83
CMLW3010S100MST	10±20%	0.342	39	0.78	0.73
CMLW3010S120MST	12±20%	0.432	36	0.69	0.65
CMLW3010S150MST	15±20%	0.522	30	0.61	0.59
CMLW3010S220MST	22±20%	0.796	28	0.48	0.48
CMLW3010S330MST	33±20%	1.326	18	0.39	0.38
CMLW3010S390MST	39±20%	1.497	18	0.38	0.35
CMLW3010S470MST	47±20%	1.668	18	0.30	0.33
CMLW3010S510MST	51±20%	1.881	18	0.29	0.31
CMLW3010S560MST	56±20%	1.984	16	0.29	0.30

◆ **Note**

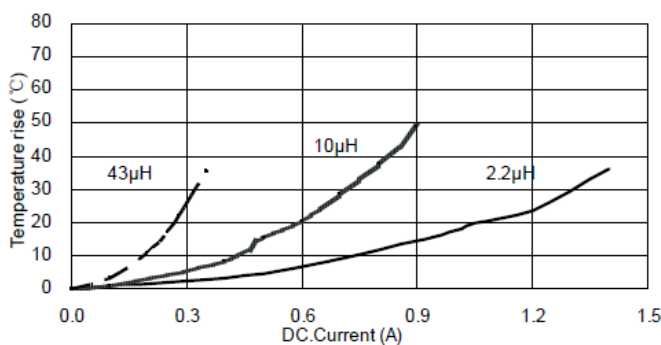
- 1: All test data is referenced to 20°C ambient;
- 2: Rated current: Isat or Irms, whichever is smaller;
- 3: Isat: DC current at which the inductance drops approximate 30% from its value without current;
- 4: Irms: DC current that causes the temperature rise ( $\Delta T = 40^\circ C$ ) from 20°C ambient.

◆ **Standard Packing Quantity: 2000 pcs/reel**

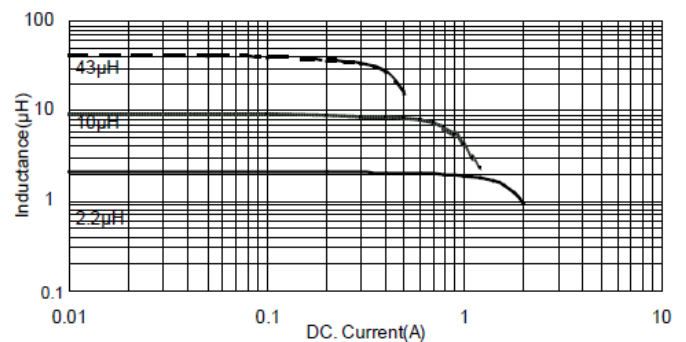
◆ **TYPICAL ELECTRICAL CHARACTERISTICS**

**CMLW3010S Series**

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



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