



◆ **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

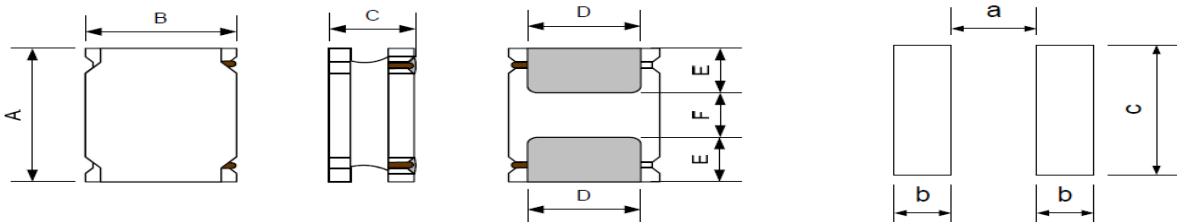
◆ **Lead Free Part Numbering**

CMLW 252010 S 2R2 M S T
(1) (2) (3) (4) (5) (6) (7)

- (1) Series Type
- (2) Dimension: L ×W× H(2.5×2.0×1.0mm)
- (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



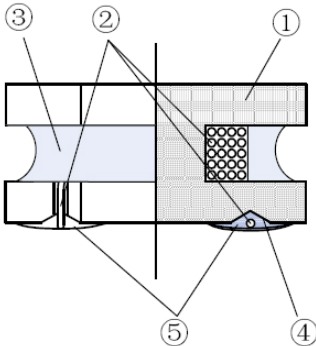
Unit:mm

Series	A	B	C	D	E	F	a Typ.	b Typ.	c Typ.
CMLW252010	2.5±0.2	2.0±0.2	1.0Max.	1.5±0.2	0.80±0.2	0.80±0.2	0.8	0.85	2.0

◆ **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**



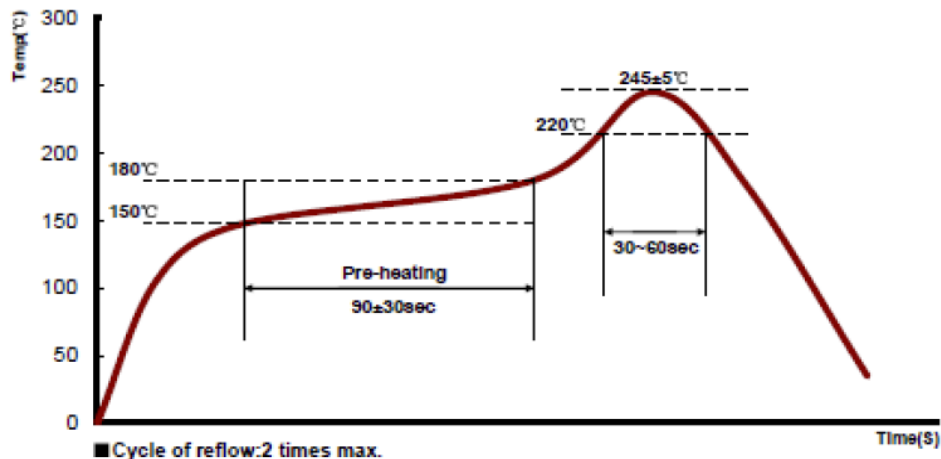
Code	Part Name	Material Name
①	Ferrite Core	Ni-Zn Ferrite
②	Wire	Polyurethane system enameled copper wire
③	Magnetic Glue	Epoxy resin and magnetic powder
④	Plating Electrodes	Ag
		Ni
		Sn
⑤	Outer Electrodes	Top surface solder coating Sn、Ag、Cu

◆ **REFLOW-PROFILE**

Limit Profile



Standard Profile (for EOC Solder paste S70G-HF)



◆ **Specification**

Part Number	Inductance @100KHz,1V (μ H)	DC Resistance(Ω)		Saturation Current(A)		Heat Rating Current (A)
		Max.	Typ.	Min.	Typ.	Typ.
		DCR		Isat		Irms
CMLW252010 Series						
CMLW252010SR47NST	0.47 \pm 30%	0.054	0.045	2.80	3.75	3.03
CMLW252010SR68NST	0.68 \pm 30%	0.072	0.058	2.46	3.08	2.42
CMLW252010S1R0MST	1.0 \pm 20%	0.110	0.084	2.07	2.46	1.98
CMLW252010S1R5MST	1.5 \pm 20%	0.174	0.142	2.02	2.35	1.60
CMLW252010S2R2MST	2.2 \pm 20%	0.199	0.162	1.46	1.79	1.32
CMLW252010S3R3MST	3.3 \pm 20%	0.312	0.254	1.18	1.46	1.10
CMLW252010S4R7MST	4.7 \pm 20%	0.536	0.437	1.06	1.29	0.88
CMLW252010S6R8MST	6.8 \pm 20%	0.854	0.695	0.87	1.03	0.79
CMLW252010S100MST	10 \pm 20%	1.050	0.846	0.73	0.87	0.64

◆ **Note**

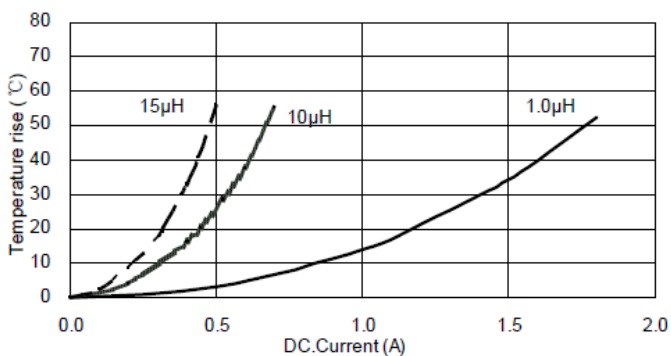
- 1: All test data is referenced to 20°C ambient;
- 2: Rated current: Isat or Irms, whichever is smaller;
- 3: Isat: DC current at which the inductance drops approximate 30% from its value without current;
- 4: Irms: DC current that causes the temperature rise ($\Delta T = 40^\circ C$) from 20°C ambient.

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

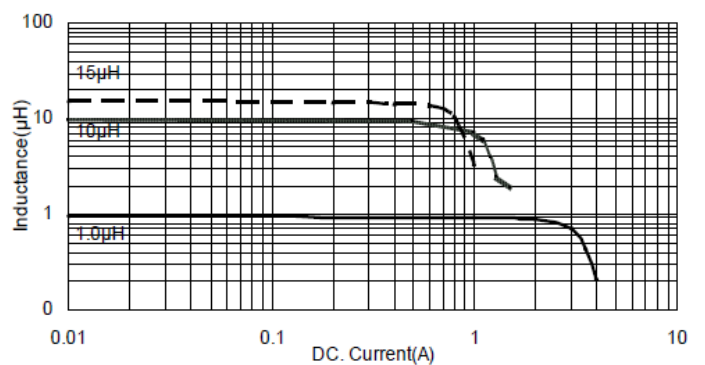
◆ **TYPICAL ELECTRICAL CHARACTERISTICS**

CMLW252010 Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



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