



◆ **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**

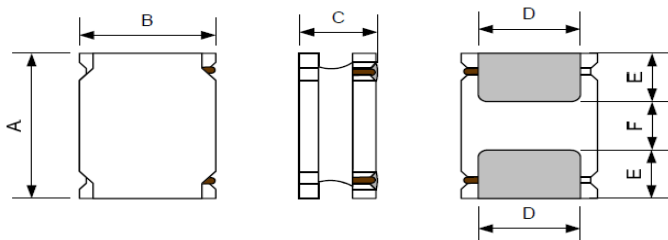
- 1、LED Lighting;
- 2、Mobile devices with multifunction such as adding color TV and camera;
- 3、Flat-screen TVs, blue-ray disc recorders, set top boxes;
- 4、Notebooks, desktop computers, servers, graphic cards;
- 5、Portable gaming devices, personal navigation systems, personal multimedia devices;
- 6、Automotive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

◆ **Lead Free Part Numbering**

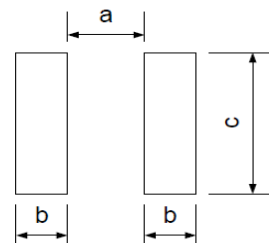
CMLW 252012 S 2R2 M S T
(1) (2) (3) (4) (5) (6) (7)

- (1) Series Type
- (2) Dimension: L ×W× H(2.5×2.0×1.2mm)
- (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



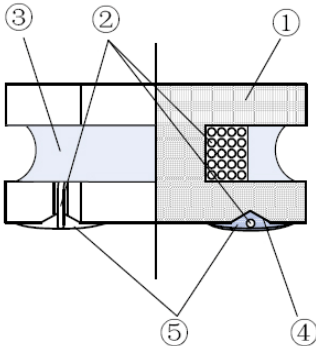
Unit:mm

Series	A	B	C	D	E	F	a Typ.	b Typ.	c Typ.
CMLW252012S	2.5±0.2	2.0±0.2	1.2Max.	1.5±0.2	0.80±0.2	0.80±0.2	0.8	0.85	2.0

◆ **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.)

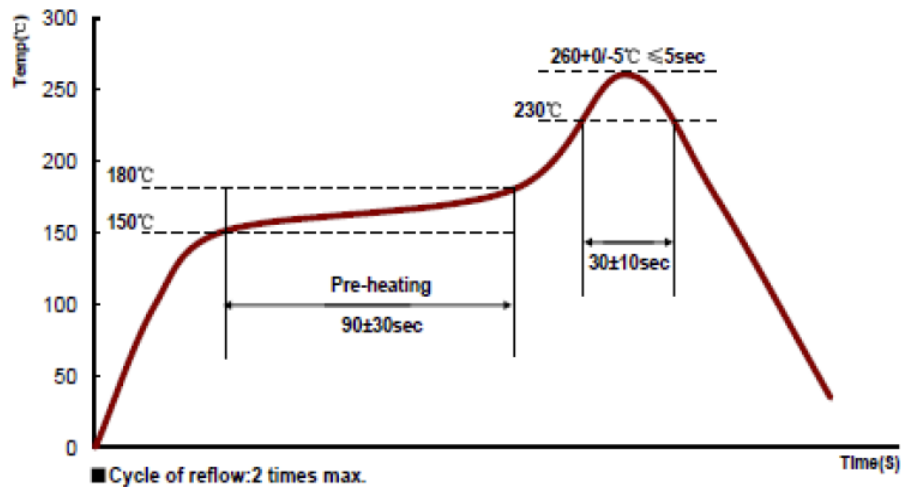
◆ **Construction and material**



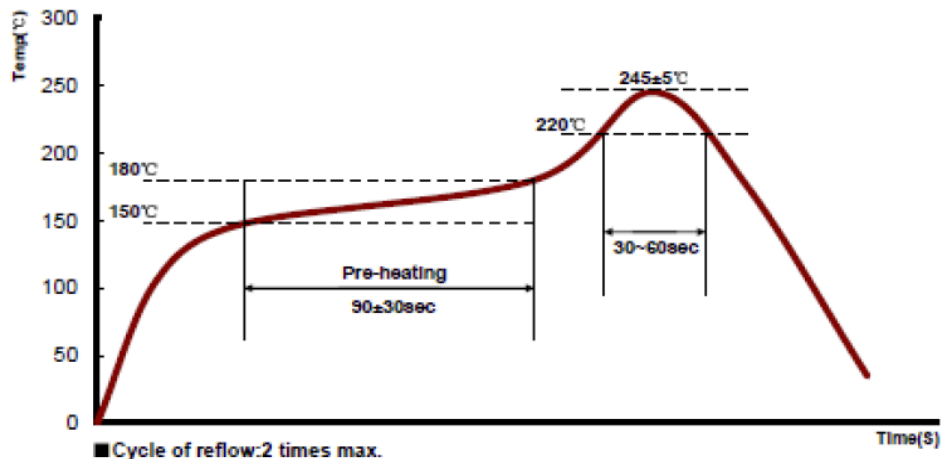
Code	Part Name	Material Name
①	Ferrite Core	Ni-Zn Ferrite
②	Wire	Polyurethane system enameled copper wire
③	Magnetic Glue	Epoxy resin and magnetic powder
④	Plating Electrodes	Ag
		Ni
		Sn
⑤	Outer Electrodes	Top surface solder coating Sn、Ag、Cu

◆ **REFLOW-PROFILE**

Limit Profile



Standard Profile (for EOC Solder paste S70G-HF)



◆ **Specification**

Part Number	Inductance @100KHz,1V (μ H)	DC Resistance(Ω)		Saturation Current(A)		Heat Rating Current (A)
		Max.	Typ.	Min.	Typ.	Typ.
		DCR		Isat		Irms
CMLW252012 Series						
CMLW252012SR24NST	0.24 \pm 30%	0.036	0.029	4.50	5.40	3.90
CMLW252012SR47MST	0.47 \pm 20%	0.045	0.041	4.03	4.51	3.70
CMLW252012SR68MST	0.68 \pm 20%	0.079	0.072	3.43	3.84	3.30
CMLW252012S1R0MST	1.0 \pm 20%	0.092	0.083	3.00	3.36	2.60
CMLW252012S1R5MST	1.5 \pm 20%	0.122	0.110	2.51	2.81	2.20
CMLW252012S2R2MST	2.2 \pm 20%	0.158	0.130	2.07	2.32	1.85
CMLW252012S3R3MST	3.3 \pm 20%	0.216	0.196	1.80	2.02	1.45
CMLW252012S4R7MST	4.7 \pm 20%	0.341	0.299	1.32	1.48	1.20
CMLW252012S6R8MST	6.8 \pm 20%	0.482	0.438	1.10	1.22	1.00
CMLW252012S100MST	10 \pm 20%	0.621	0.564	0.99	1.09	0.75
CMLW252012S150MST	15 \pm 20%	0.132	1.200	0.76	0.85	0.60
CMLW252012S220MST	22 \pm 20%	1.640	1.480	0.59	0.66	0.50

◆ **Note**

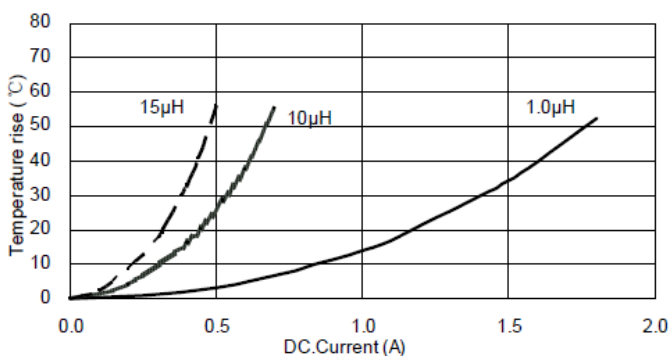
- 1: All test data is referenced to 20°C ambient;
- 2: Rated current: Isat or Irms, whichever is smaller;
- 3: Isat: DC current at which the inductance drops approximate 30% from its value without current;
- 4: Irms: DC current that causes the temperature rise ($\Delta T = 40^\circ\text{C}$) from 20°C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

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

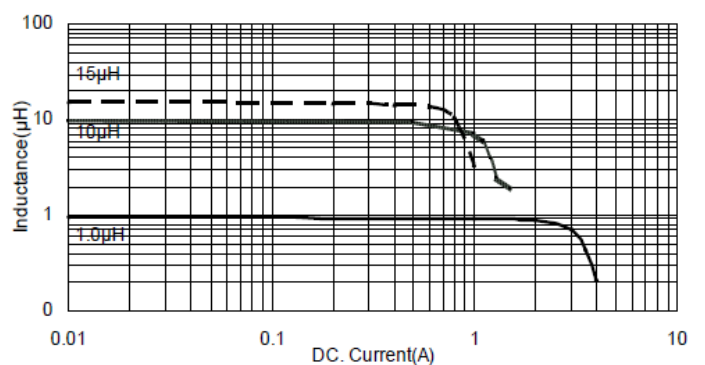
◆ **TYPICAL ELECTRICAL CHARACTERISTICS**

CMLW252012 Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



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