



◆ **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**

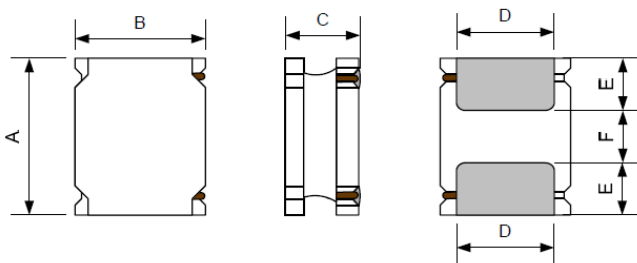
- 1、LED Lighting;
- 2、Mobile devices with multifunction such as adding color TV and camera;
- 3、Flat-screen TVs, blue-ray disc recorders, set top boxes;
- 4、Notebooks, desktop computers, servers, graphic cards;
- 5、Portable gaming devices, personal navigation systems, personal multimedia devices;
- 6、Automotive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

◆ **Lead Free Part Numbering**

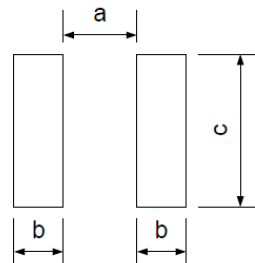
CMLW 6012 S 4R7 M S T
(1) (2) (3) (4) (5) (6) (7)

- (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.
CMLW6012S	6.0±0.3	6.0±0.3	1.2Max.	4.9±0.3	1.55±0.3	2.90±0.3	2.8	1.7	5.7

◆ **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**



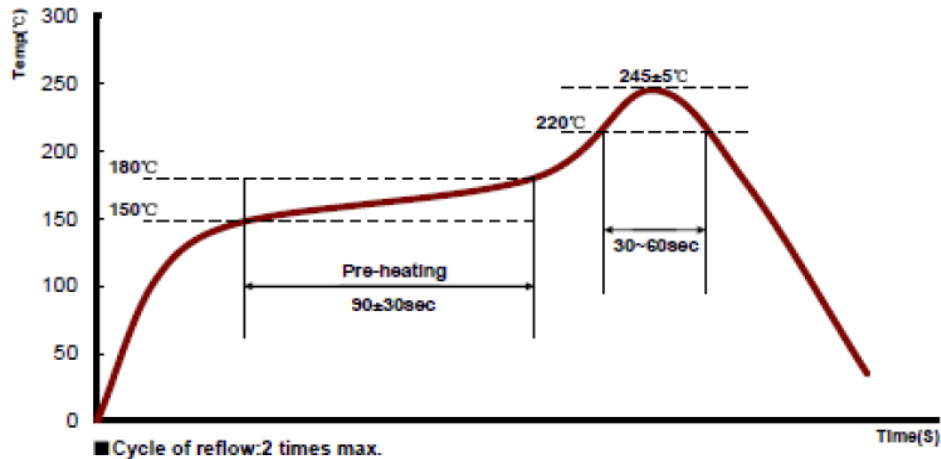
Code	Part Name	Material Name
①	Ferrite Core	Ni-Zn Ferrite
②	Wire	Polyurethane system enameled copper wire
③	Magnetic Glue	Epoxy resin and magnetic powder
④	Plating Electrodes	Ag
		Ni
		Sn
⑤	Outer Electrodes	Top surface solder coating Sn、Ag、Cu

◆ **REFLOW-PROFILE**

Limit Profile



Standard Profile (for EOC Solder paste S70G-HF)



◆ **Specification**

Part Number	Inductance @100KHz,1V (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
CMLW6012S Series					
CMLW6012S1R0MST	1.0 $\pm 20\%$	0.087	61	3.50	2.50
CMLW6012S2R2MST	2.2 $\pm 20\%$	0.102	61	2.60	2.10
CMLW 6012S3R3MST	3.3 $\pm 20\%$	0.139	56	2.30	1.90
CMLW6012S4R7MST	4.7 $\pm 20\%$	0.187	51	1.85	1.50
CMLW6012S6R8MST	6.8 $\pm 20\%$	0.221	46	1.60	1.20
CMLW6012S100MST	10 $\pm 20\%$	0.366	44	1.40	1.10
CMLW6012S150MST	15 $\pm 20\%$	0.560	41	1.00	0.65
CMLW6012S220MST	22 $\pm 20\%$	0.867	36	0.80	0.60

◆ **Note**

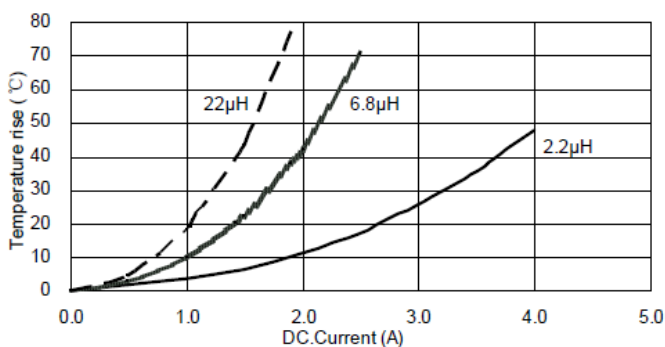
- 1: All test data is referenced to 20°C ambient;
- 2: Rated current: Isat or Irms, whichever is smaller;
- 3: Isat: DC current at which the inductance drops approximate 30% from its value without current;
- 4: Irms: DC current that causes the temperature rise ($\Delta T = 40^\circ C$) from 20°C ambient.

◆ **Standard Packing Quantity: 1000 pcs/reel**

◆ **TYPICAL ELECTRICAL CHARACTERISTICS**

CMLW6012S Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics

