



◆ **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
- 4、Small and low profile inductor;
- 5、Take up less PCB real estate and save more power。



◆ **Applications**

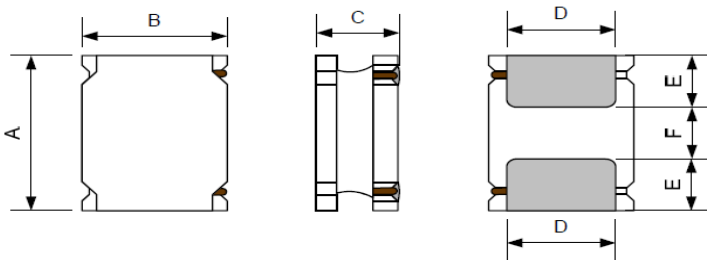
- 1、Smart phone;
- 2、Mobile devices with multifunction such as adding color TV and camera;
- 3、Flat-screen TVs, blue-ray disc recorders, set top boxes;
- 4、Notebooks, desktop computers, servers, graphic cards;
- 5、Portable gaming devices, personal navigation systems, personal multimedia devices;
- 6、Automotive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

◆ **Lead Free Part Numbering**

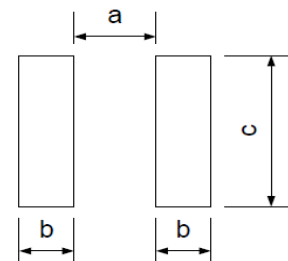
**CMLW 252012 P 2R2 M S T**  
**(1) (2) (3) (4) (5) (6) (7)**

- (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.
CMLW252012P	2.5±0.2	2.0±0.2	1.2Max.	1.5±0.2	0.80±0.2	0.80±0.2	0.80	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**



No.	Components	Material
①	Core	Soft magnetic Metal
②	Wire	Polyurethane system enameled copper wire
③	Magnetic Glue	Epoxy resin and magnetic powder
④	substrate	FeNiCu/Ag or Ag/Ni/Sn
⑤	Top Electrodes	Sn alloy
⑥	Marking	Nitrocellulose

◆ **REFLOW-PROFILE**

**Limit Profile**



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



◆ **Specification**

Part Number	Inductance @100KHz, 1V ( $\mu\text{H}$ )	DC Resistance( $\text{m}\Omega$ )		Saturation Current Isat		Heat Rating Current Irms	
		DCR		Min. (A)	Typ. (A)	Min. (A)	Typ. (A)
		Typ.	Max.				
<b>CMLW252012P Series</b>							
CMLW252012PR24MST	0.24 $\pm$ 20%	19	23	7.00	8.50	4.05	4.70
CMLW252012PR33MST	0.33 $\pm$ 20%	23	28	6.00	7.00	3.7	4.30
CMLW252012PR47MST	0.47 $\pm$ 20%	29	35	5.10	5.80	3.45	4.00
CMLW252012PR68MST	0.68 $\pm$ 20%	36	43	3.90	4.50	3.15	3.60
CMLW252012P1R0MST	1.0 $\pm$ 20%	48	54	3.70	4.30	3.0	3.40
CMLW252012P1R5MST	1.5 $\pm$ 20%	60	72	2.90	3.50	2.4	2.80
CMLW252012P2R2MST	2.2 $\pm$ 20%	100	120	2.60	3.00	1.9	2.15
CMLW252012P3R3MST	3.3 $\pm$ 20%	136	163	1.70	2.10	1.8	2.05
CMLW252012P4R7MST	4.7 $\pm$ 20%	225	260	1.60	1.90	1.25	1.45
CMLW252012P6R8MST	6.8 $\pm$ 20%	305	366	1.15	1.35	0.95	1.10
CMLW252012P100MST	10 $\pm$ 20%	450	500	1.10	1.35	0.85	1.00

◆ **Note**

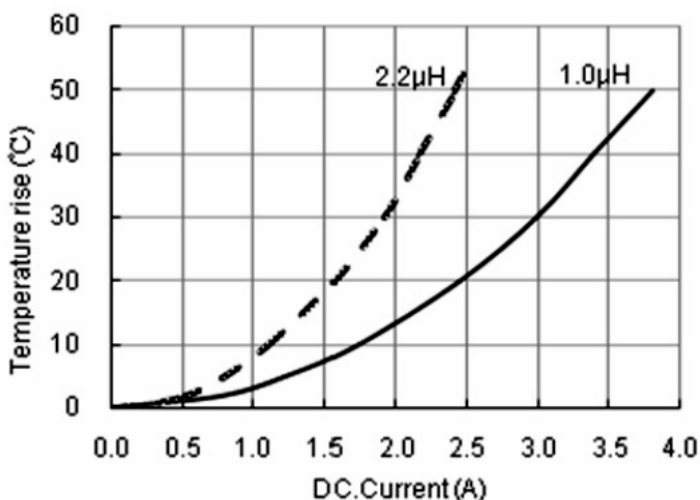
- 1: All test data is referenced to 20°C ambient;
- 2: Rated current: Isat or Irms, whichever is smaller;
- 3: Isat: DC current at which the inductance drops approximate 30% from its value without current;
- 4: Irms: DC current that causes the temperature rise ( $\Delta T = 40^\circ\text{C}$ ) from 20°C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

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

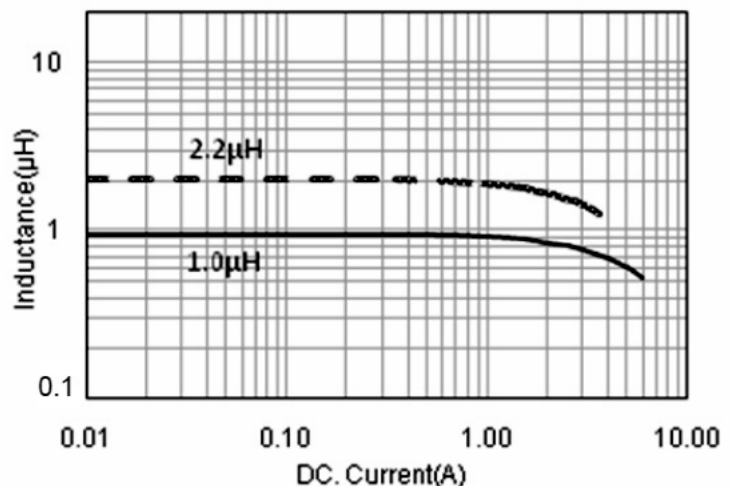
◆ **TYPICAL ELECTRICAL CHARACTERISTICS**

**CMLW252012P Series**

Temperature vs.DC Current Characteristics



Inductance vs.DC Current Characteristics



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