



◆ **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**

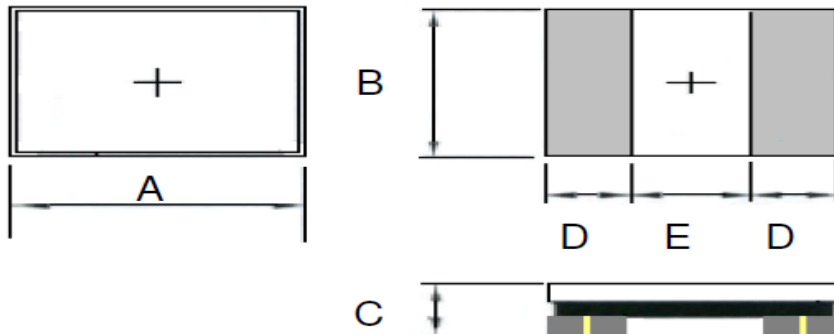
- 1、LED Lighting;
- 2、Mobile devices with multifunction such as adding color TV and camera;
- 3、Flat-screen TVs, blue-ray disc recorders, set top boxes;
- 4、Notebooks, desktop computers, servers, graphic cards;
- 5、Portable gaming devices, personal navigation systems, personal multimedia devices;
- 6、Automotive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

◆ **Lead Free Part Numbering**

**CMLW 201610 S 2R2 M S T**  
**(1) (2) (3) (4) (5) (6) (7)**

- (1) Series Type
- (2) Dimension: L ×W× H (2.0×1.6×1.0mm)
- (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**



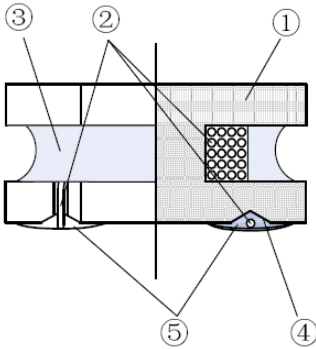
Unit:mm

Series	A	B	C	D	E
CMLW201610	2.0±0.2	1.6±0.1	1.0Max.	0.60 ref	0.80 ref

◆ **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**



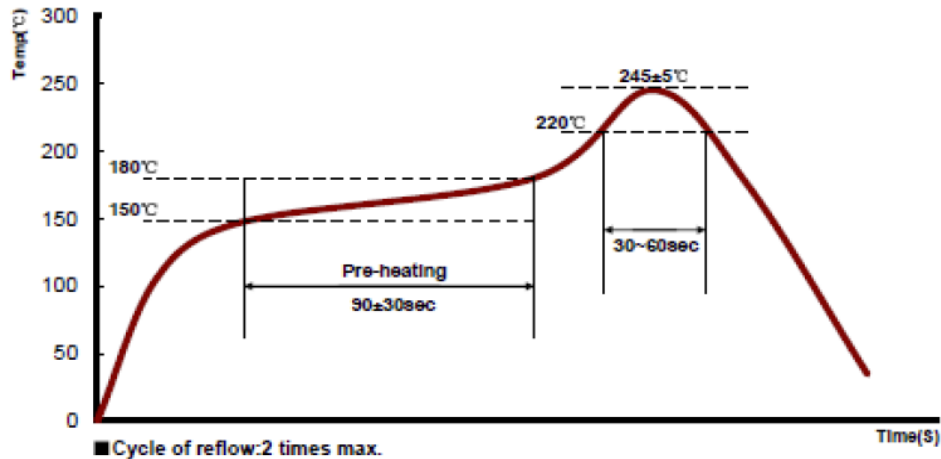
Code	Part Name	Material Name
①	Ferrite Core	Ni-Zn Ferrite
②	Wire	Polyurethane system enameled copper wire
③	Magnetic Glue	Epoxy resin and magnetic powder
④	Plating Electrodes	Ag
		Ni
		Sn
⑤	Outer Electrodes	Top surface solder coating Sn、Ag、Cu

◆ **REFLOW-PROFILE**

**Limit Profile**



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



◆ **Specification**

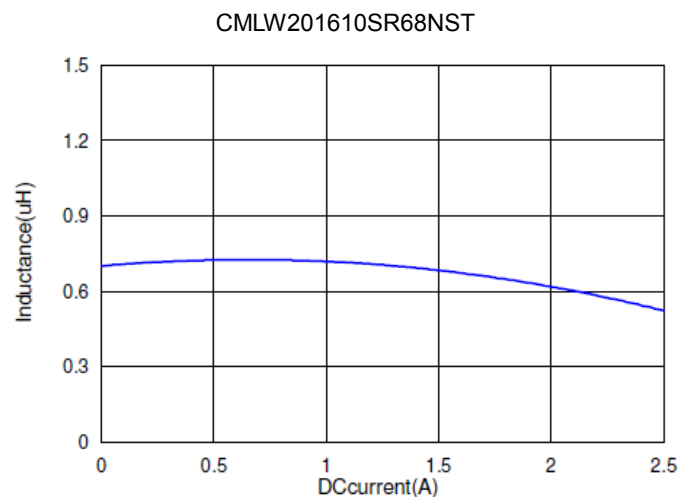
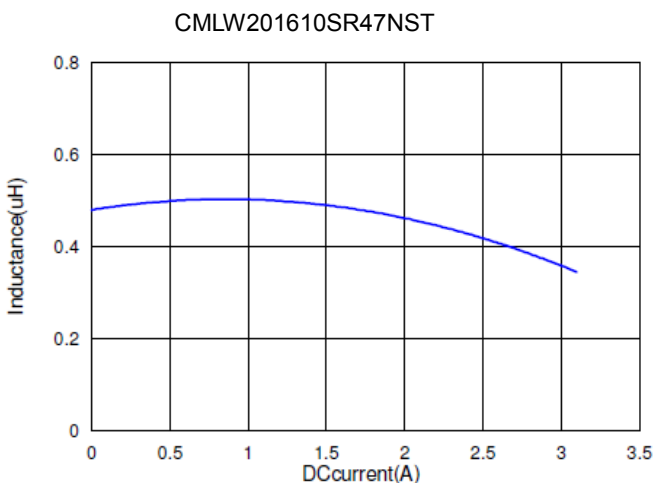
Part Number	Inductance @100KHz, 1V ( $\mu$ H)	DC Resistance( $\Omega$ )	Saturation Current(A)		Heat Rating Current (A)	
			Min.	Typ.	Min.	Typ.
		DCR $\pm$ 20%		Isat		Irms
<b>CMLW201610 Series</b>						
CMLW201610SR47NST	0.47 $\pm$ 30%	0.044	2.70	3.00	2.35	2.60
CMLW201610SR68NST	0.68 $\pm$ 30%	0.062	2.00	2.45	2.05	2.25
CMLW201610S1R0MST	1.0 $\pm$ 20%	0.080	1.80	1.95	1.60	1.75
CMLW201610S1R5MST	1.5 $\pm$ 20%	0.130	1.46	1.65	1.26	1.40
CMLW201610S2R2MST	2.2 $\pm$ 20%	0.145	1.26	1.45	1.20	1.35
CMLW201610S3R3MST	3.3 $\pm$ 20%	0.245	0.90	1.05	0.95	1.05
CMLW201610S4R7MST	4.7 $\pm$ 20%	0.360	0.77	0.85	0.90	1.00
CMLW201610S6R8MST	6.8 $\pm$ 20%	0.500	0.72	0.80	0.55	0.70
CMLW201610S100MST	10 $\pm$ 20%	0.720	0.55	0.62	0.45	0.50
CMLW201610S150MST	15 $\pm$ 20%	1.400	0.45	0.50	0.36	0.40
CMLW201610S180MST	18 $\pm$ 20%	1.800	0.40	0.45	0.34	0.38
CMLW201610S220MST	22 $\pm$ 20%	2.000	0.38	0.43	0.27	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.

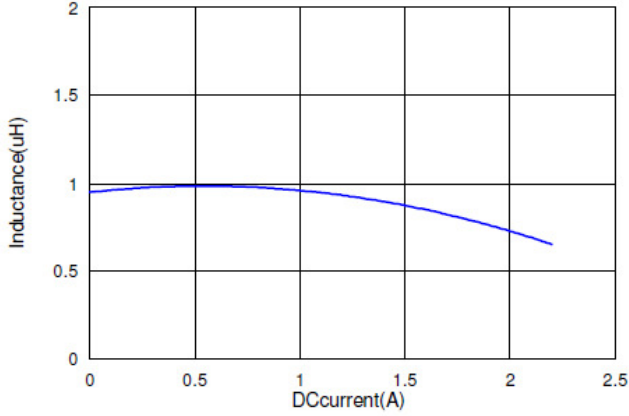
◆ **Standard Packing Quantity: 2000 pcs/reel**

◆ **TYPICAL ELECTRICAL CHARACTERISTICS**

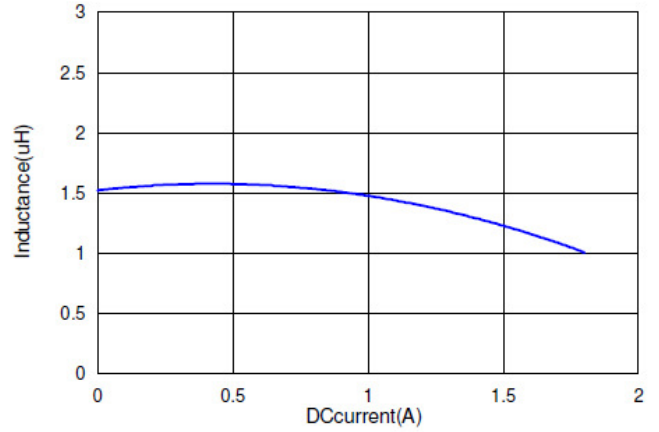


◆ TYPICAL ELECTRICAL CHARACTERISTICS

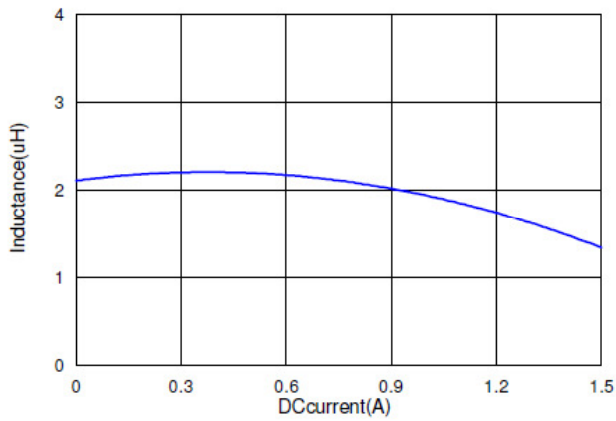
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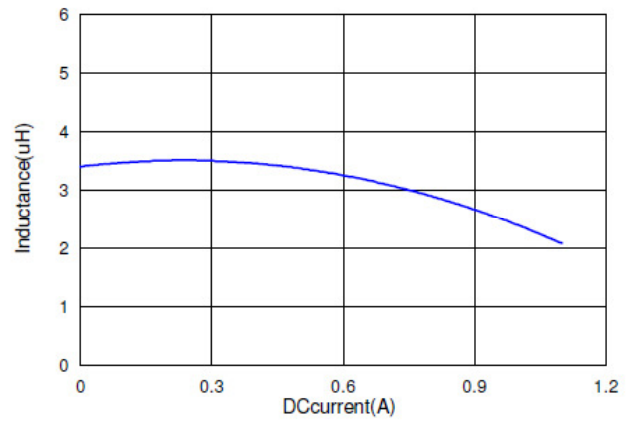
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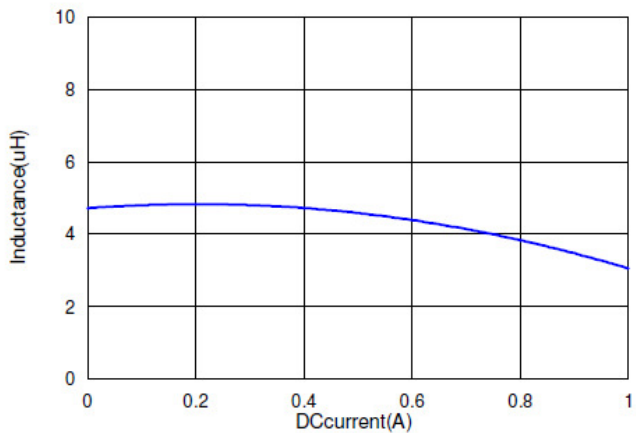
CMLW201610S2R2MST



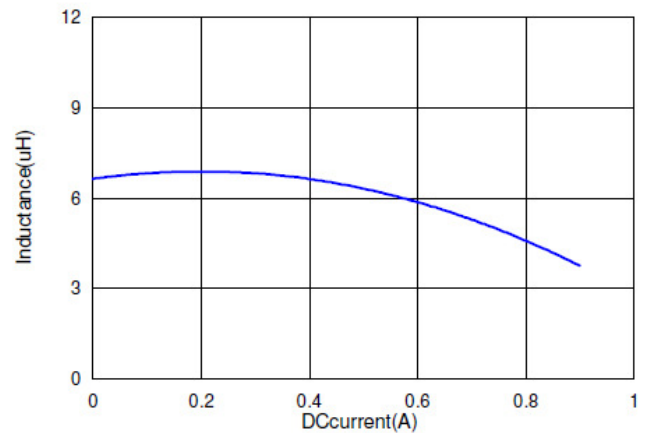
CMLW201610S3R3MST



CMLW201610S4R7MST

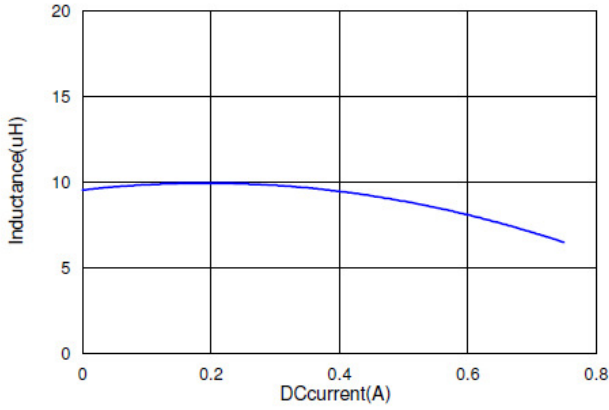


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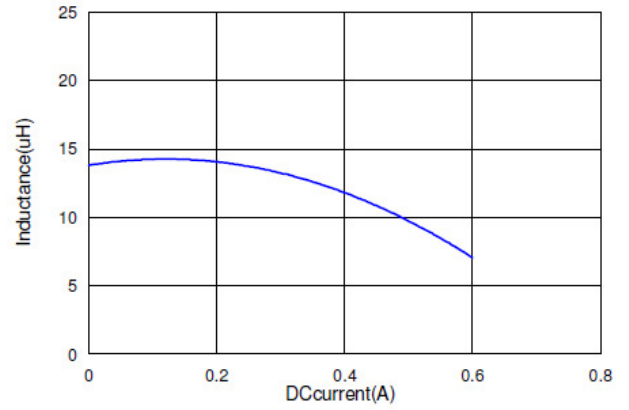


◆ TYPICAL ELECTRICAL CHARACTERISTICS

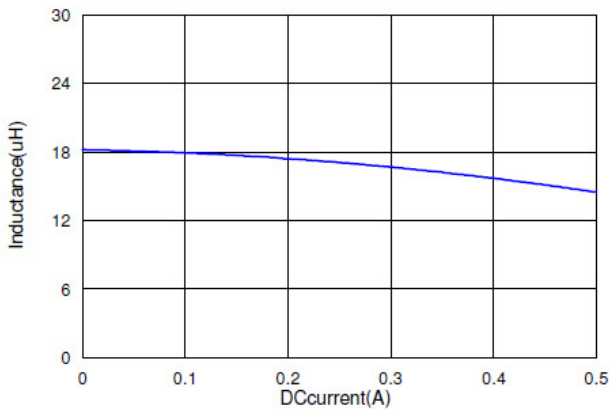
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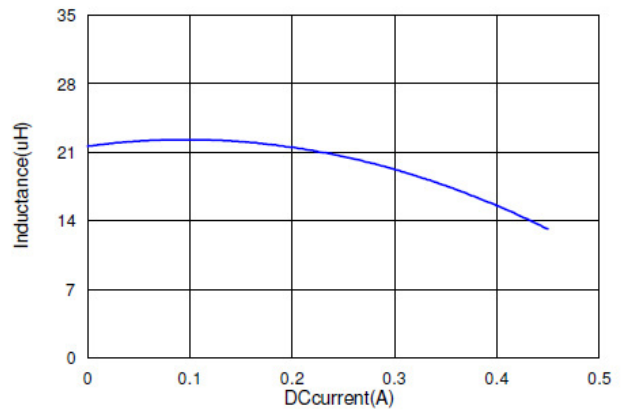
CMLW201610S150MST



CMLW201610S180MST



CMLW201610S220MST



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