



◆ **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**

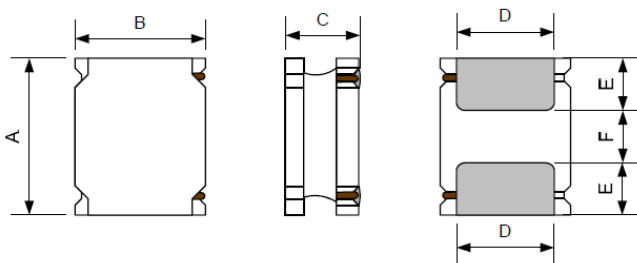
- 1、LED Lighting;
- 2、Mobile devices with multifunction such as adding color TV and camera;
- 3、Flat-screen TVs, blue-ray disc recorders, set top boxes;
- 4、Notebooks, desktop computers, servers, graphic cards;
- 5、Portable gaming devices, personal navigation systems, personal multimedia devices;
- 6、Automotive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

◆ **Lead Free Part Numbering**

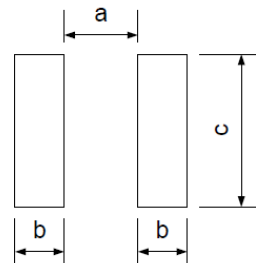
CMLW 3015 S 100 M S T
(1) (2) (3) (4) (5) (6) (7)

- (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



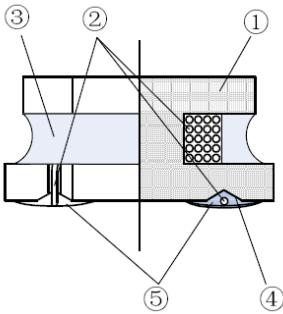
Unit:mm

Series	A	B	C	D	E	F	a Typ.	b Typ.	c Typ.
CMLW3015S	3.0±0.2	3.0±0.2	1.5Max.	2.5±0.2	0.75±0.2	1.50±0.2	1.5	0.8	2.7

◆ **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 (μH)	DC Resistance ±30% (Ω)	Min.Self-resonant Frequency (MHz)	Saturation Current(A)	Heat Rating Current (A)
		DCR	S.R.F	Isat	Irms
CMLW3015 Series					
CMLW3015S1R0MST	1.0±20%	0.033	150	2.73	2.35
CMLW3015S1R5MST	1.5±20%	0.045	100	2.73	1.90
CMLW3015S2R2MST	2.2±20%	0.054	86	1.90	1.79
CMLW3015S2R7MST	2.7±20%	0.068	64	1.80	1.60
CMLW3015S3R3MST	3.3±20%	0.072	68	1.62	1.52
CMLW3015S4R7MST	4.7±20%	0.113	46	1.31	1.22
CMLW3015S5R1MST	5.1±20%	0.113	49	1.28	1.22
CMLW3015S6R2MST	6.2±20%	0.176	46	1.19	0.96
CMLW3015S6R8MST	6.8±20%	0.180	39	1.03	0.95
CMLW3015S100MST	10±20%	0.225	41	0.97	0.86
CMLW3015S120MST	12±20%	0.288	32	0.83	0.76
CMLW3015S150MST	15±20%	0.315	30	0.78	0.73
CMLW3015S180MST	18±20%	0.387	23	0.66	0.66
CMLW3015S220MST	22±20%	0.414	23	0.62	0.64
CMLW3015S330MST	33±20%	0.738	20	0.53	0.48
CMLW3015S390MST	39±20%	0.896	14	0.48	0.44
CMLW3015S470MST	47±20%	1.125	14	0.41	0.39
CMLW3015S560MST	56±20%	1.152	13	0.39	0.38
CMLW3015S101MST	100±20%	2.250	10	0.21	0.21

◆ **Note**

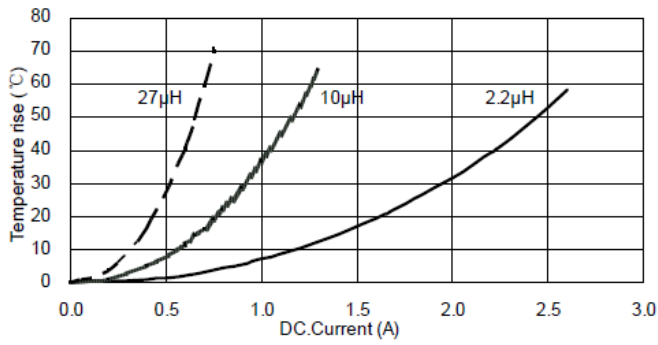
- 1: All test data is referenced to 20°C ambient;
- 2: Rated current: Isat or Irms, whichever is smaller;
- 3: Isat: DC current at which the inductance drops approximate 30% from its value without current;
- 4: Irms: DC current that causes the temperature rise ($\Delta T = 40^{\circ}\text{C}$) from 20°C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

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

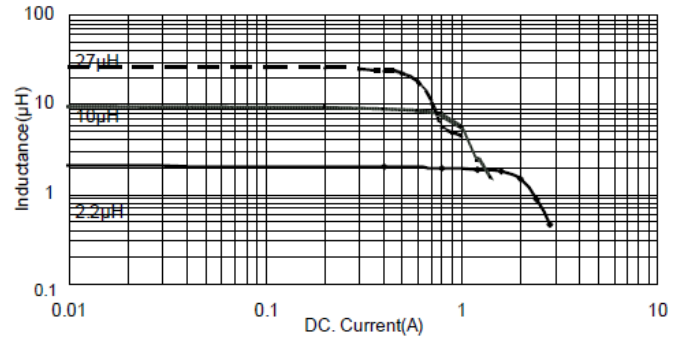
◆ TYPICAL ELECTRICAL CHARACTERISTICS

CMLW3015 Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



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