



◆ **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**

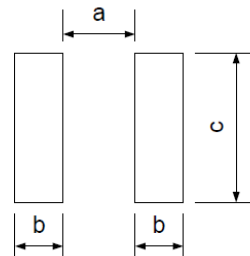
CMLW 6045 S 100 M S T
(1) (2) (3) (4) (5) (6) (7)

- (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



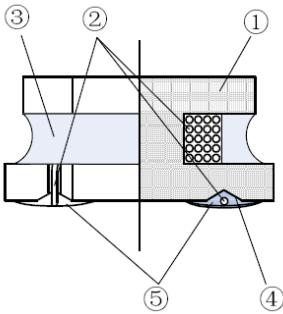
Unit:mm

Series	A	B	C	D	E	F	a Typ.	b Typ.	c Typ.
CMLW6045S	6.0±0.3	6.0±0.3	4.5Max.	4.9±0.3	1.55±0.3	2.90±0.3	2.8	1.7	5.7

◆ **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 (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
CMLW6045S Series					
CMLW6045SR82NST	0.82 \pm 30%	0.008	140	10.40	5.90
CMLW6045S1R0NST	1.0 \pm 30%	0.011	100	9.85	5.14
CMLW6045S1R5NST	1.5 \pm 30%	0.012	65	8.80	4.95
CMLW6045S1R8MST	1.8 \pm 20%	0.012	74	7.60	4.95
CMLW6045S2R2MST	2.2 \pm 20%	0.014	52	6.75	4.60
CMLW6045S3R3MST	3.3 \pm 20%	0.021	32	5.90	3.70
CMLW6045S3R6MST	3.6 \pm 20%	0.021	28	5.25	3.70
CMLW6045S4R7MST	4.7 \pm 20%	0.026	24	5.00	3.35
CMLW6045S5R6MST	5.6 \pm 20%	0.029	23	4.15	3.15
CMLW6045S6R8MST	6.8 \pm 20%	0.031	20	3.90	3.00
CMLW6045S8R2MST	8.2 \pm 20%	0.043	21	3.90	2.60
CMLW6045S100MST	10 \pm 20%	0.048	15	3.20	2.45
CMLW6045S120MST	12 \pm 20%	0.058	13	2.80	2.20
CMLW6045S150MST	15 \pm 20%	0.068	12	2.50	2.05
CMLW6045S220MST	22 \pm 20%	0.089	10	2.05	1.80
CMLW6045S330MST	33 \pm 20%	0.137	7.8	1.65	1.45
CMLW6045S470MST	47 \pm 20%	0.200	6.4	1.40	1.20
CMLW6045S560MST	56 \pm 20%	0.221	6.4	1.30	1.10
CMLW6045S680MST	68 \pm 20%	0.289	6.4	1.20	1.00
CMLW6045S820MST	82 \pm 20%	0.341	4.9	1.05	0.90
CMLW6045S101MST	100 \pm 20%	0.433	4.2	0.95	0.80
CMLW6045S121MST	120 \pm 20%	0.484	4.2	0.85	0.77
CMLW6045S151MST	150 \pm 20%	0.580	4.2	0.80	0.70
CMLW6045S221MST	220 \pm 20%	0.834	3.5	0.70	0.59
CMLW6045S331MST	330 \pm 20%	1.270	2.8	0.57	0.57

◆ **Note**

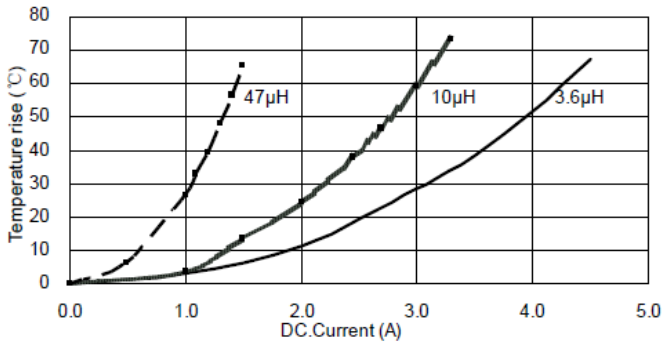
- 1: All test data is referenced to 20°C ambient;
- 2: Rated current: Isat or Irms, whichever is smaller;
- 3: Isat: DC current at which the inductance drops approximate 30% from its value without current;
- 4: Irms: DC current that causes the temperature rise ($\Delta T = 40^\circ\text{C}$) from 20°C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

◆ **Standard Packing Quantity: 1500 pcs/reel**

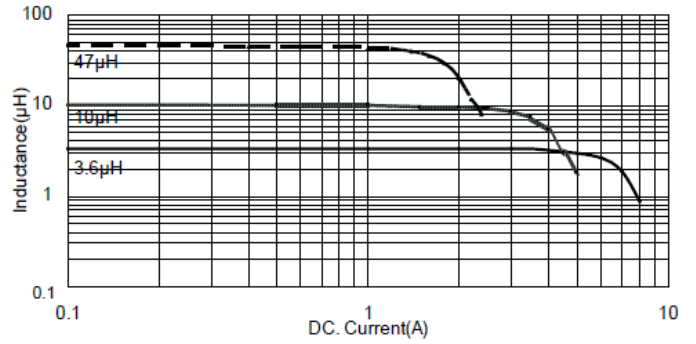
◆ TYPICAL ELECTRICAL CHARACTERISTICS

CMLW6045S Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



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