

Wire Wound SMD Power Inductor



◆ **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**

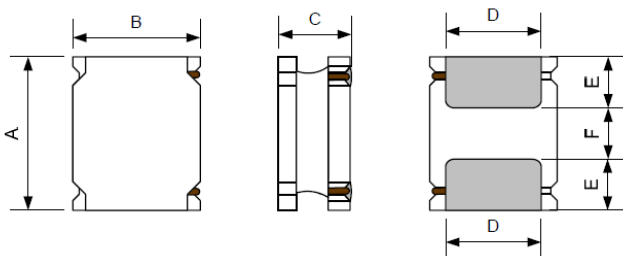
- 1、LED Lighting;
- 2、Mobile devices with multifunction such as adding color TV and camera;
- 3、Flat-screen TVs, blue-ray disc recorders, set top boxes;
- 4、Notebooks, desktop computers, servers, graphic cards;
- 5、Portable gaming devices, personal navigation systems, personal multimedia devices;
- 6、Automotive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

◆ **Lead Free Part Numbering**

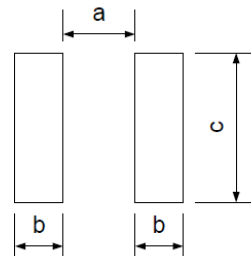
CMLW 4018 S 100 M S T
(1) (2) (3) (4) (5) (6) (7)

- (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



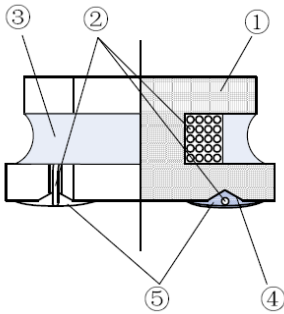
Unit:mm

Series	A	B	C	D	E	F	a Typ.	b Typ.	c Typ.
CMLW4018S	4.0±0.2	4.0±0.2	1.8Max.	3.3±0.2	0.95±0.2	2.10±0.2	1.9	1.1	3.7

◆ **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
CMLW4018 Series					
CMLW4018S1R0MST	1.0±20%	0.025	80	4.80	2.00
CMLW4018S1R5MST	1.5±20%	0.030	65	3.35	1.80
CMLW4018S2R2MST	2.2±20%	0.045	52	2.70	1.65
CMLW4018S3R3MST	3.3±20%	0.070	44	2.45	1.23
CMLW4018S4R7MST	4.7±20%	0.090	34	1.70	1.20
CMLW4018S6R8MST	6.8±20%	0.110	29	1.45	1.06
CMLW4018S100MST	10±20%	0.180	24	1.30	0.84
CMLW4018S150MST	15±20%	0.250	19	0.94	0.65
CMLW4018S220MST	22±20%	0.360	16	0.80	0.59
CMLW4018S330MST	33±20%	0.530	12	0.65	0.49
CMLW4018S470MST	47±20%	0.650	10	0.57	0.42
CMLW4018S680MST	68±20%	1.000	8.3	0.47	0.32
CMLW4018S101MST	100±20%	1.750	6.5	0.40	0.25
CMLW4018S151MST	150±20%	2.500	5.5	0.31	0.22
CMLW4018S221MST	220±20%	4.000	4	0.27	0.17

◆ **Note**

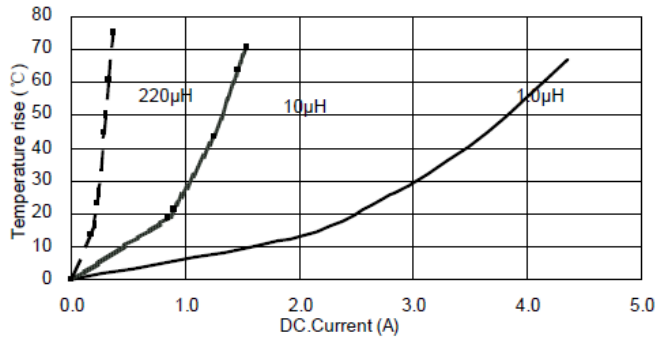
- 1: All test data is referenced to 20°C ambient;
- 2: Rated current: Isat or Irms, whichever is smaller;
- 3: Isat: DC current at which the inductance drops approximate 30% from its value without current;
- 4: Irms: DC current that causes the temperature rise ($\Delta T = 40^\circ\text{C}$) from 20°C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

◆ **Standard Packing Quantity: 3000 pcs/reel**

◆ TYPICAL ELECTRICAL CHARA

CMLW4018S Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics

