



◆ **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**

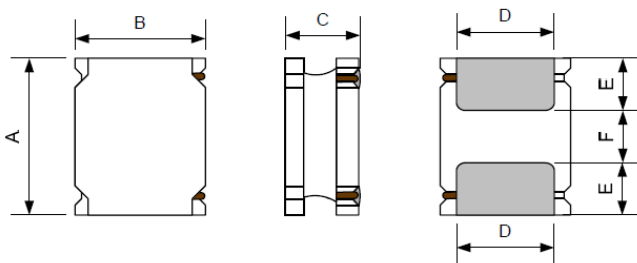
- 1、LED Lighting;
- 2、Mobile devices with multifunction such as adding color TV and camera;
- 3、Flat-screen TVs, blue-ray disc recorders, set top boxes;
- 4、Notebooks, desktop computers, servers, graphic cards;
- 5、Portable gaming devices, personal navigation systems, personal multimedia devices;
- 6、Automotive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

◆ **Lead Free Part Numbering**

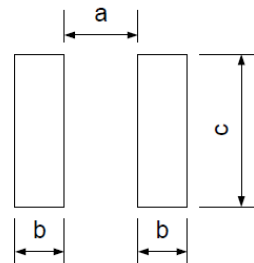
**CMLW 6020 S 100 M S T**  
**(1) (2) (3) (4) (5) (6) (7)**

- (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



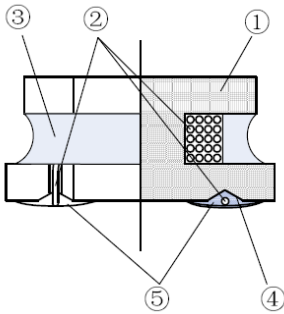
Unit:mm

Series	A	B	C	D	E	F	a Typ.	b Typ.	c Typ.
<b>CMLW6020S</b>	6.0±0.3	6.0±0.3	2.0Max.	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 ( $\mu$ H)	DC Resistance $\pm 30\%$ ( $\Omega$ )	Min.Self-resonant Frequency (MHz)	Saturation Current(A)	Heat Rating Current (A)
		DCR	S.R.F	Isat	Irms
<b>CMLW6020S Series</b>					
CMLW6020SR68NST	0.68 $\pm 30\%$	0.017	120	7.50	3.80
CMLW6020S1R0NST	1.0 $\pm 30\%$	0.020	94	4.15	3.25
CMLW6020S1R5NST	1.5 $\pm 30\%$	0.022	79	4.25	3.20
CMLW6020S2R2NST	2.2 $\pm 30\%$	0.028	61	3.75	2.75
CMLW6020S3R3NST	3.3 $\pm 30\%$	0.035	51	3.15	2.60
CMLW6020S4R7NST	4.7 $\pm 30\%$	0.058	41	3.00	2.00
CMLW6020S5R6NST	5.6 $\pm 30\%$	0.058	36	2.40	1.90
CMLW6020S6R8NST	6.8 $\pm 30\%$	0.079	31	2.20	1.80
CMLW6020S8R2NST	8.2 $\pm 20\%$	0.105	28	2.10	1.40
CMLW6020S100MST	10 $\pm 20\%$	0.105	27	1.75	1.40
CMLW6020S150MST	15 $\pm 20\%$	0.145	21	1.50	1.20
CMLW6020S220MST	22 $\pm 20\%$	0.204	16	1.25	1.00
CMLW6020S330MST	33 $\pm 20\%$	0.300	11	0.96	0.85

◆ **Note**

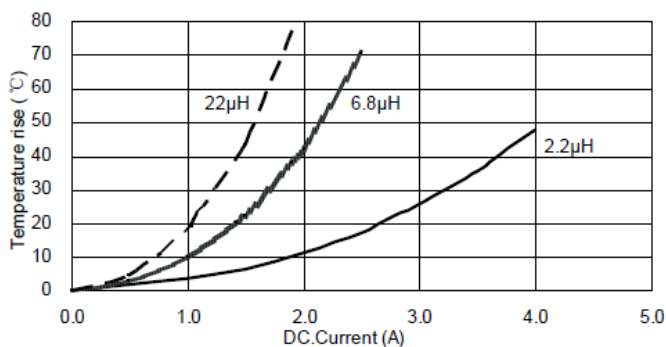
- 1: All test data is referenced to 20°C ambient;
- 2: Rated current: Isat or Irms, whichever is smaller;
- 3: Isat: DC current at which the inductance drops approximate 30% from its value without current;
- 4: Irms: DC current that causes the temperature rise ( $\Delta T = 40^\circ\text{C}$ ) from 20°C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

◆ **Standard Packing Quantity: 2500 pcs/reel**

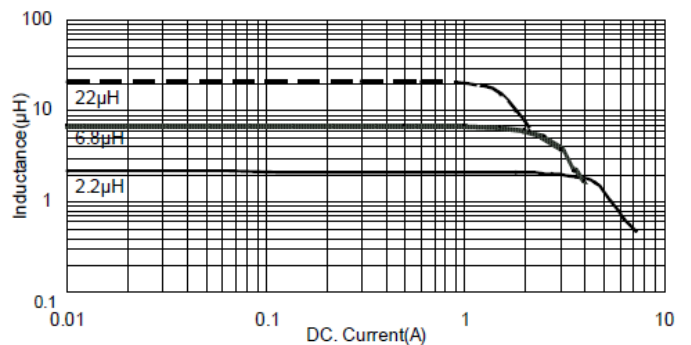
◆ **TYPICAL ELECTRICAL CHARACTERISTICS**

**CMLW6020S Series**

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



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