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CMLW3015S Series

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

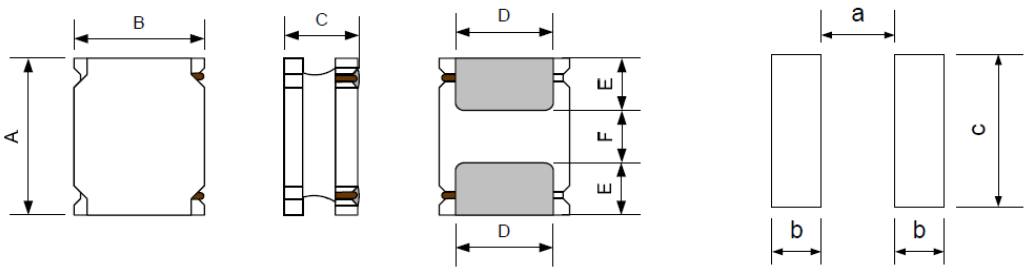
◆ Lead Free Part Numbering

CMLW	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



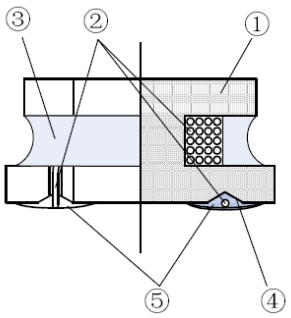
Unit:mm

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℃ ~ +125℃
2) Storage temperature range (packaging conditions): -10℃~+40℃ and RH 70% (Max.)

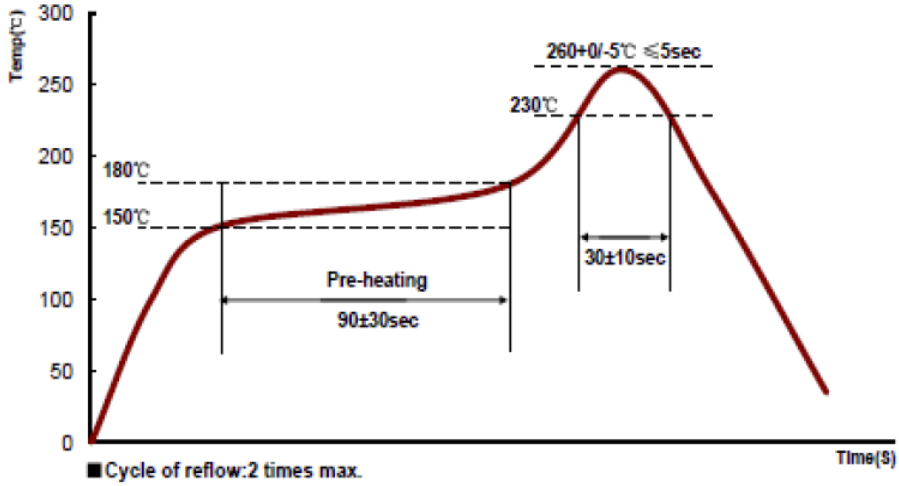
◆ Construction and material



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

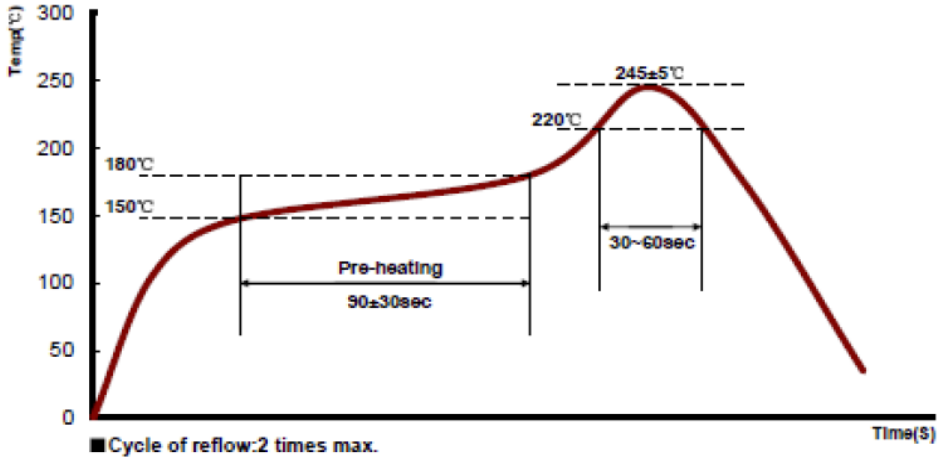
◆ REFLOW-PROFILE

Limit Profile



■Cycle of reflow:2 times max.

Standard Profile (for EOC Solder paste S70G-HF)



■Cycle of reflow:2 times max.

◆ Specification

Part Number	Inductance @100KHz, 1V (μH)	DC Resistance ±30% (Ω) DCR	Min.Self-resonant Frequency（MHz） S.R.F	Saturation Current(A) Isat	Heat Rating Current (A) Irms
CMLW3015 Series					
CMLW3015S1R0NST	1.0±30%	0.033	150	2.73	2.35
CMLW3015S1R5NST	1.2±30%	0.045	100	2.73	1.90
CMLW3015S2R2MST	2.2±20%	0.054	86	1.95	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	1.41	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

◆ **Note**

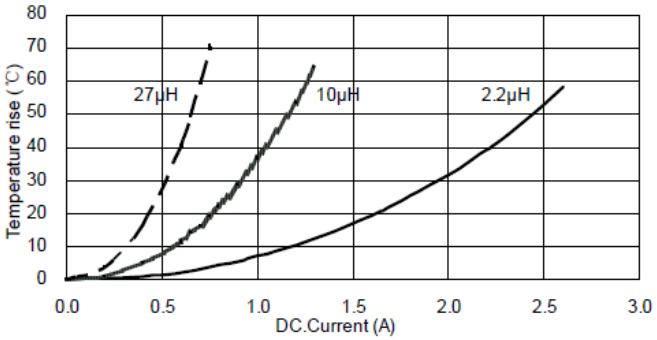
1：All test data is referenced to 20℃ ambient;
2：Rated current: Isat or Irms, whichever is smaller;
3：Isat: DC current at which the inductance drops approximate 30% from its value without current;
4：Irms: DC current that causes the temperature rise (△T =40℃) from 20℃ ambient.

◆ Standard Packing Quantity：2000 pcs/reel

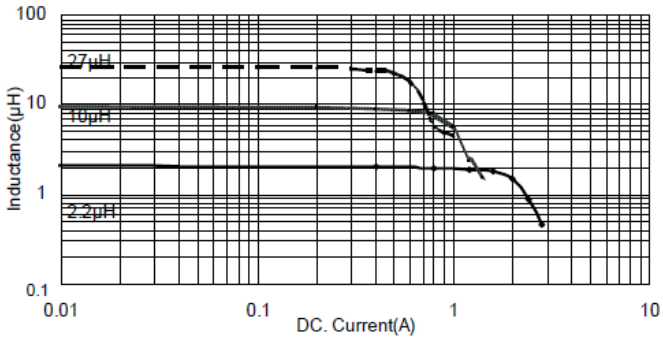
◆ TYPICAL ELECTRICAL CHARACTERISTICS

CMLW3015 Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



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