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CMLW4015S 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 resistaMSTe and damage-free durability;
3、Closed magnetic circuit design reduces leakage flux and Electro Magnetic InterfereMSTe (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 multifuMSTtion 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

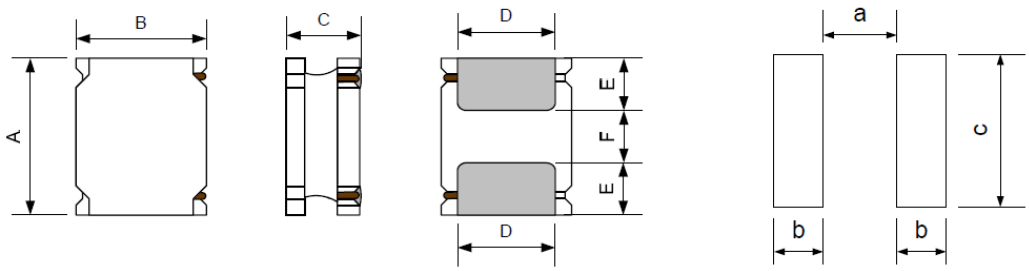
◆ Lead Free Part Numbering

CMLW	4015	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



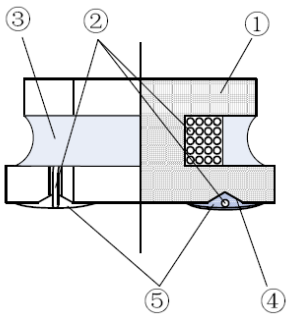
Unit:mm

Series	A	B	C	D	E	F	a Typ.	b Typ.	c Typ.
CMLW4015S	4.0±0.2	4.0±0.2	1.5Max.	3.3±0.2	0.95±0.2	2.10±0.2	1.9	1.1	3.7

◆ Electrical Characteristics

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

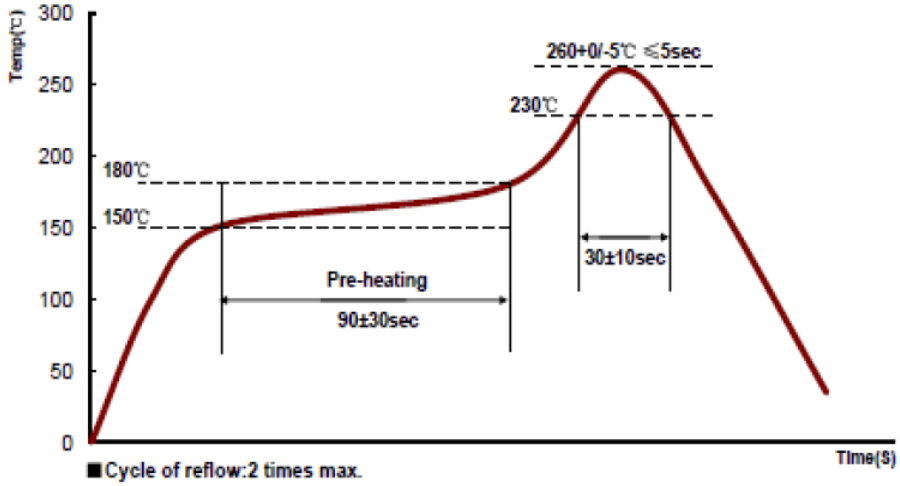
◆ Construction and material



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

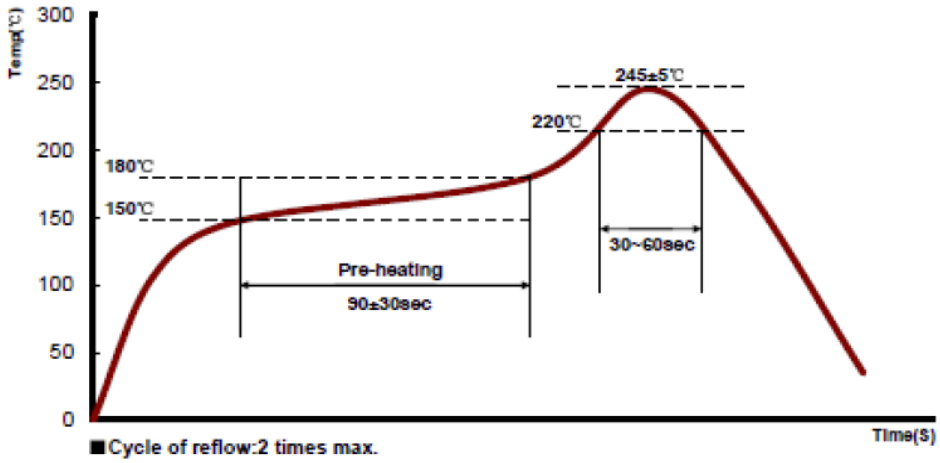
◆ REFLOW-PROFILE

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	InductaMSTe @100KHz,1V (μH)	DC ResistaMSTe ±30% (Ω)	Min.Self-resonant FrequeMSTy （MHz）	Saturation Current(A)	Heat Rating Current (A)
		DCR	S.R.F	Isat	Irms
CMLW4015 Series					
CMLW4015S1R0NST	1.0±30%	0.028	90	3.80	2.00
CMLW4015S1R5NST	1.5±30%	0.056	88	2.80	2.70
CMLW4015S2R2MST	2.2±20%	0.088	74	2.60	2.60
CMLW4015S3R3MST	3.3±20%	0.099	71	2.20	2.20
CMLW4015S4R7MST	4.7±20%	0.136	60	2.00	2.00
CMLW4015S6R8MST	6.8±20%	0.204	57	1.60	1.60
CMLW4015S100MST	10±20%	0.221	54	1.10	1.10
CMLW4015S150MST	15±20%	0.367	50	0.94	0.94
CMLW4015S220MST	22±20%	0.449	50	0.80	0.80

◆ Note

1：All test data is refereMSTed to 20°C ambient；

2：Rated current: Isat or Irms, whichever is smaller；

3：Isat: DC current at which the inductaMSTe drops approximate 30% from its value without current；

4：Irms: DC current that causes the temperature rise (△T =40°C) from 20°C ambient；

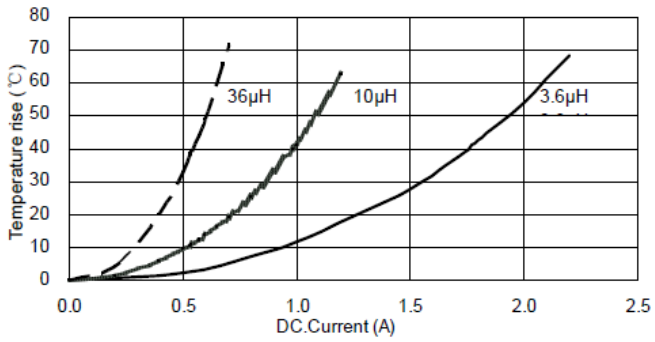
5：Operating temperature -55°C ~ +125°C。

◆ Standard Packing Quantity：1000 pcs/reel

◆ TYPICAL ELECTRICAL CHARACTERISTICS

CMLW4015S Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristic