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CMLW3010S 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

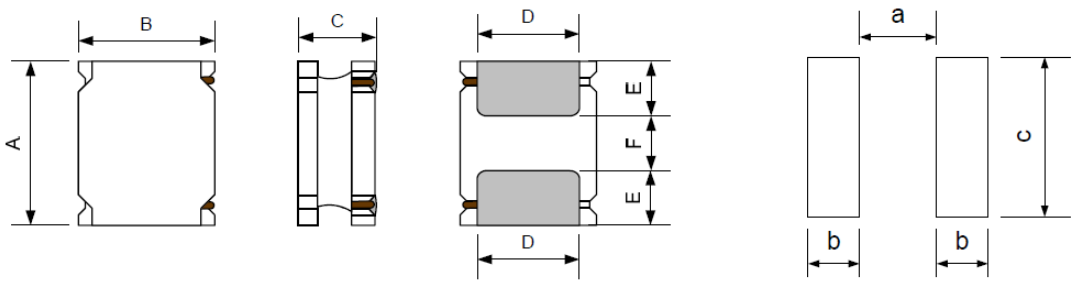
◆ Lead Free Part Numbering

CMLW	3010	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



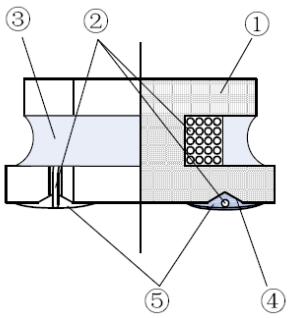
Unit:mm

Series	A	B	C	D	E	F	a Typ.	b Typ.	c Typ.
CMLW3010S	3.0±0.2	3.0±0.2	1.0Max.	2.5±0.2	0.75±0.2	1.50±0.2	1.5	0.8	2.7

◆ Electrical Characteristics

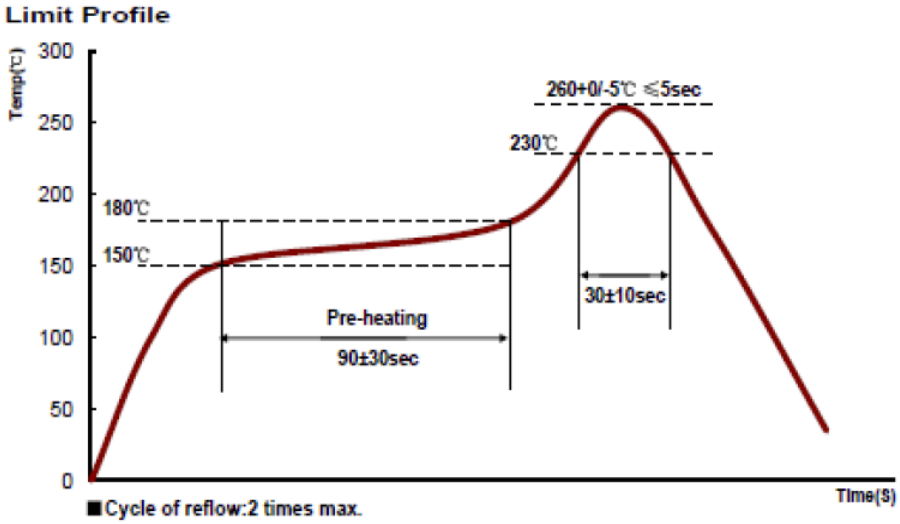
1) Operating temperature range（Including self-heating)：-40℃ ~ +125℃
2) Storage temperature range (packaging conditions): -10℃~+40℃ and RH 70% (Max.)

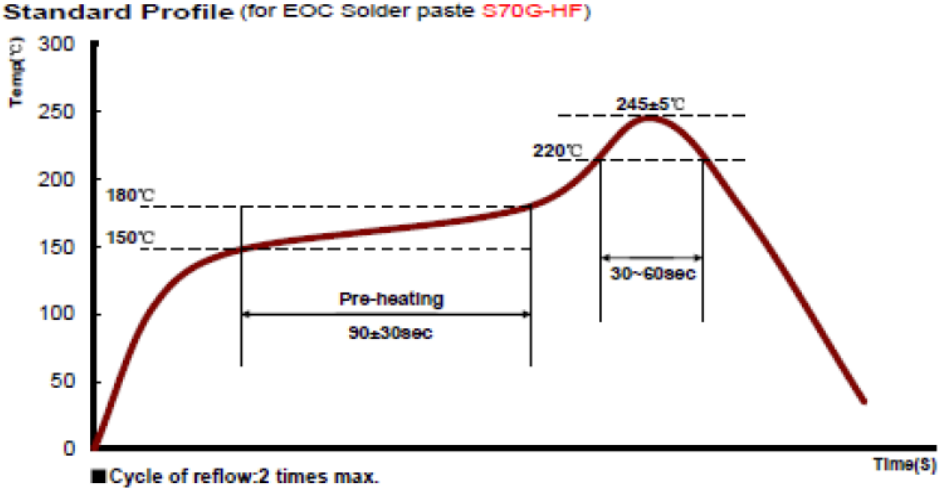
◆ Construction and material



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





◆ 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
CMLW3010S Series					
CMLW3010S1R0MST	1.0±30%	0.056	180	1.89	1.81
CMLW3010S1R5MST	1.5±30%	0.068	120	1.71	1.63
CMLW3010S2R2MST	2.2±30%	0.095	100	1.55	1.36
CMLW3010S3R3MST	3.3±30%	0.124	74	1.31	1.20
CMLW3010S4R7MST	4.7±20%	0.193	59	1.03	0.96
CMLW3010S6R8MST	6.8±20%	0.261	42	0.89	0.83
CMLW3010S100MST	10±20%	0.342	39	0.78	0.73
CMLW3010S120MST	12±20%	0.432	36	0.69	0.65
CMLW3010S150MST	15±20%	0.522	30	0.61	0.59
CMLW3010S220MST	22±20%	0.796	28	0.48	0.48
CMLW3010S330MST	33±20%	1.326	18	0.39	0.38
CMLW3010S390MST	39±20%	1.497	18	0.38	0.35
CMLW3010S470MST	47±20%	1.668	18	0.30	0.33
CMLW3010S510MST	51±20%	1.881	18	0.29	0.31
CMLW3010S560MST	56±20%	1.984	16	0.29	0.30

◆ **Note**

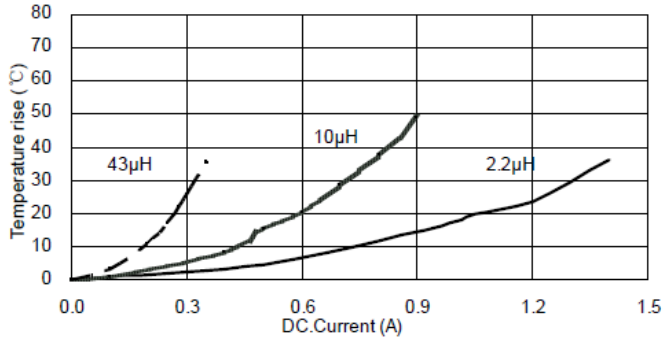
1：All test data is referenced to 20°C ambient;
2：Rated current: Isat or Irms, whichever is smaller;
3：Isat: DC current at which the inductance drops approximate 30% from its value without current;
4：Irms: DC current that causes the temperature rise (△T =40°C) from 20°C ambient.

◆ Standard Packing Quantity：2000 pcs/reel

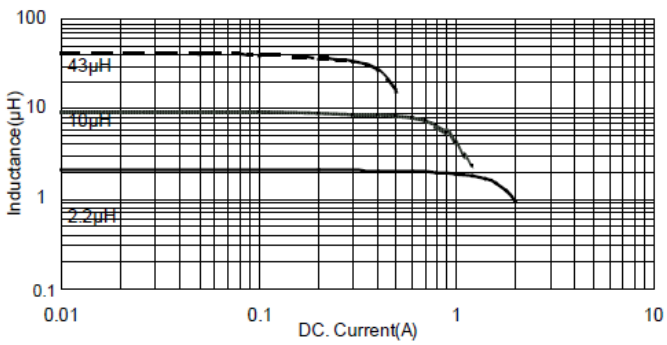
◆ TYPICAL ELECTRICAL CHARACTERISTICS

CMLW3010S Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



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