SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	SMD Power Inductor	ABC'S DWG NO.	CB2010□□□□L□-□□□		
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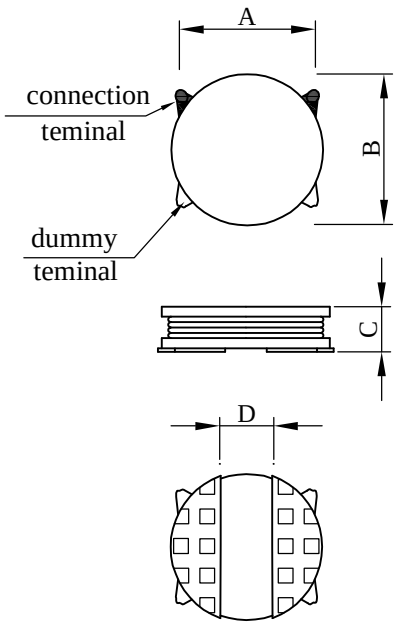
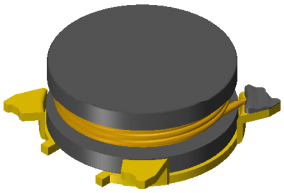
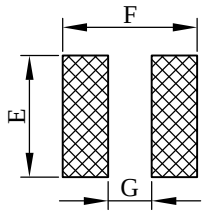
Ⅰ．Configuration and dimensions：







(PCB Pattern)

Unit：m/m

A	B	C	D	E	F	G
2.00 ±0.2	2.00 ±0.2	1.00 ±0.1	0.70 typ.	2.60 ref.	2.50 ref.	0.70 ref.

Ⅱ．Description：

a．Ferrite drum core construction.

b．Enamelled copper wire：H class

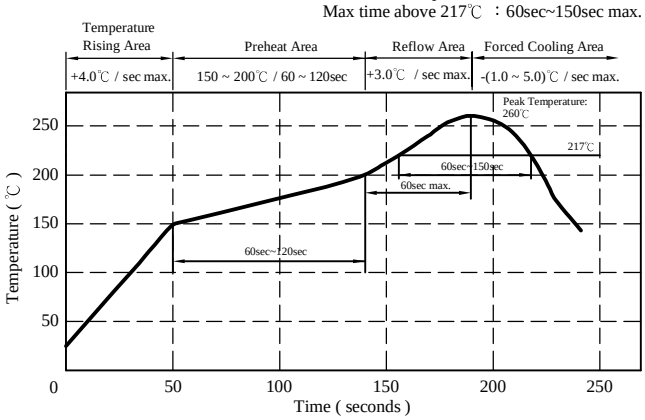
c．Product weight：0.014 g（ref.）

d．Moisture sensitivity Level 1

e．Products comply with RoHS' requirements

f．Halogen Free available

Peak Temp：260℃ max.
Max. Peak Temp - 5℃：30sec max.
Max time above 217℃ ：60sec~150sec max.



Ⅲ．General specification：

a．Storage temp.：-40℃ ----+125℃

b．Operating temp.：-40℃----+125℃

（Temp. rise included）

c．Resistance to solder heat：260℃.10 secs.

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Ⅳ . Electrical characteristics：

DWG No.	Inductance (μH)	RDC (mΩ) max.	SRF (MHz) typ.	Irms (mA) typ.	Ipeak (mA)	
					max.	typ.
CB2010R47ML□-□□□	0.47±20%	100	250	1600	2400	3100
CB2010R58ML□-□□□	0.58±20%	120	200	1500	2100	2700
CB2010R80ML□-□□□	0.80±20%	150	185	1400	1900	2400
CB20101R0ML□-□□□	1.00±20%	200	160	1200	1800	2100
CB20101R5ML□-□□□	1.50±20%	270	140	970	1450	1900
CB20102R0ML□-□□□	2.00±20%	315	120	900	1250	1700
CB20102R2ML□-□□□	2.20±20%	400	105	840	1200	1300
CB20103R3ML□-□□□	3.30±20%	550	85	730	980	1100
CB20104R7ML□-□□□	4.70±20%	800	65	600	800	950
CB20106R8ML□-□□□	6.80±20%	1000	55	540	730	850
CB20108R2ML□-□□□	8.20±20%	1300	50	490	650	750
CB2010100ML□-□□□	10.00±20%	1450	43	440	610	650
CB2010120ML□-□□□	12.00±20%	1840	35	390	510	550
CB2010150ML□-□□□	15.00±20%	2140	30	360	470	490
CB2010220ML□-□□□	22.00±20%	3600	25	200	420	450

1). □：Packaging information：□ Code

2). "-□□□"：Reference code

3). Electrical specifications at 25℃

4). Inductance Test Condition.：100kHz / 0.1V

5). Irms base on Temp. rise 40℃ typ.

6). Ipeak : Approximately peak current at short time is 10 %

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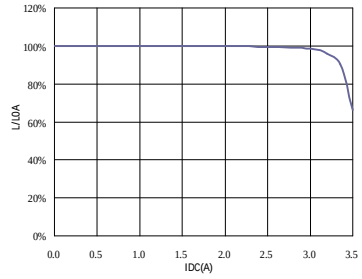
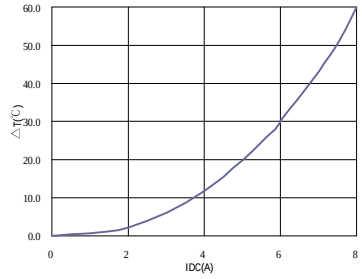
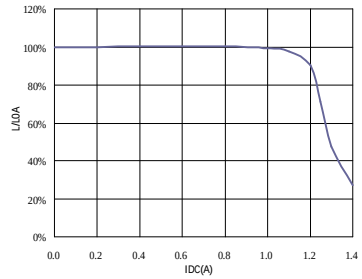
Ⅴ . Curve：

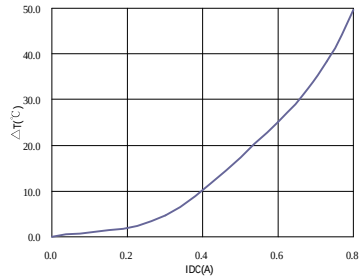
CB2010R47ML□



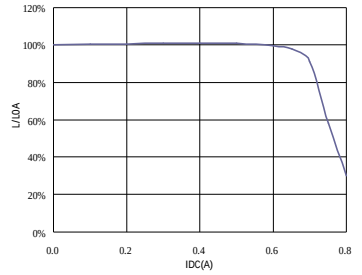


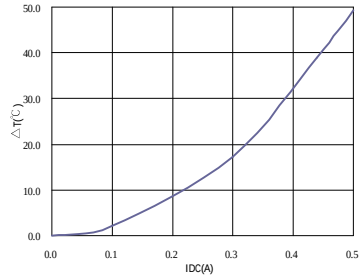
CB20103R3ML□



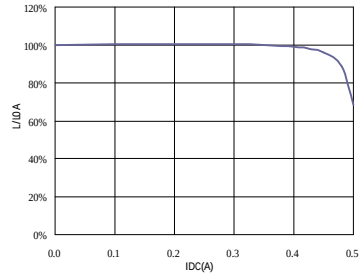


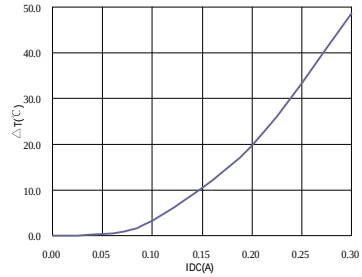
CB2010100ML□





CB2010220ML□





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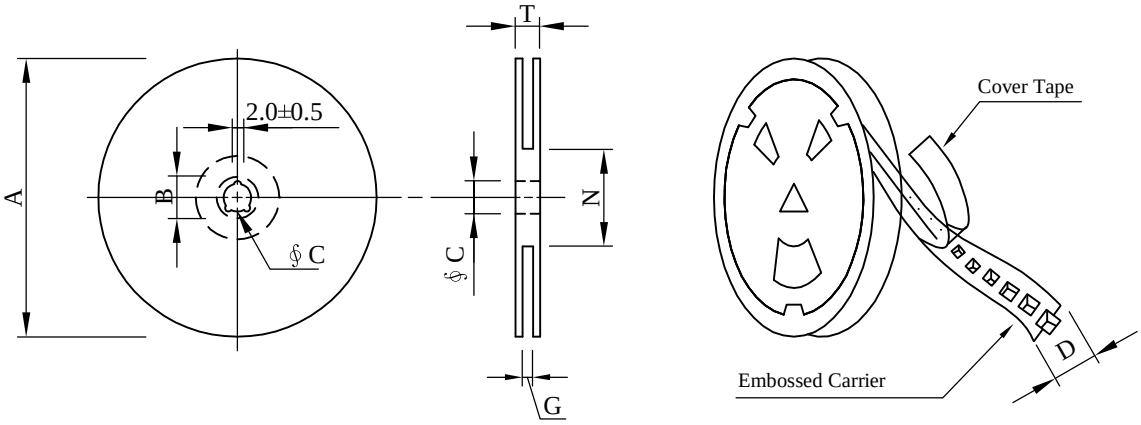
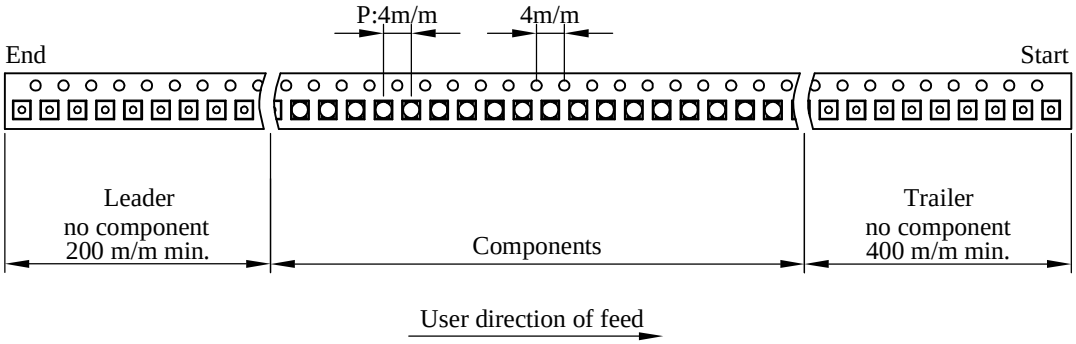
Ⅵ．Packaging information：

(1) Configuration



※Carrier tape width : D



(2) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
07 - 08	178	21±0.8	13	8	10^{+0}	50^{-0}	12.5

(3) Q'TY & G.W. Per package

Code	Inner : Reel			Outer : Carton		
	Q'TY (pcs)	G.W. (gw)	Style	Q'TY (pcs)	G.W. (Kg)	Size (cm)
B	3,000	130	07 - 08	150,000	7.90	42 x 41 x 24

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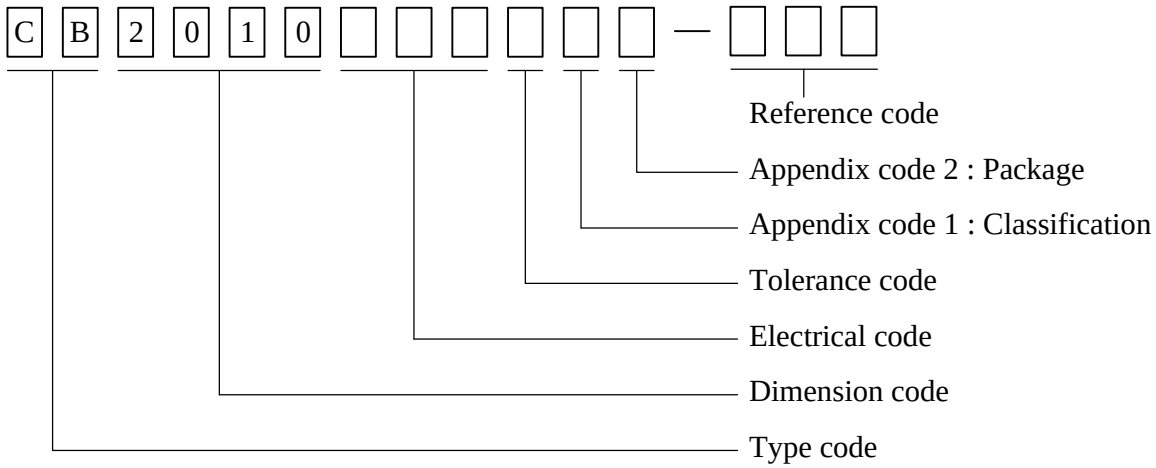
Ⅶ．Drawing number expression：



Appendix code 1：Product Classification

Appendix code 2：Package Information

Code	Inner package	Cover tape	Carrier tape	Bag	Package Q'TY	Remark
B	T /R (Reel package)	UCT	Non-antistatic	Antistatic	3000 pcs	

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Ⅷ．Reliability test：

Item	Reference documents	Test Condition	Test Specification
1.High Temperature Exposure	MIL-STD-202 Method 108	1.Temperature: 125±2℃ 2.Time:96±2 hours.	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%.
2.Temperature Cycling	JESD22-A 104	1.Temperature: -40℃ ~ +125℃ 2.Number of cycle:100 cycles. 3.Dwell time:30 minutes	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%.
3.Biased Humidity Test	MIL-STD-202 Method 103	1.Temperature：85±2 ℃ 2.Humidity: 85% RH. 3.Time:96±2 Hours	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%.
4.Operational Life	JESD22-A 108	1.Temperature: 125℃ (Temp. rise included) 2.Time:96±2 hours. 3.Rated current	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%.
5.External Visual	JESD22-B 101 & MIL-STD-883 Method 2009	Inspect product constructions, marking and workmanship.	1.No pollution on the surface of products. 2.Clear marking. 3.No crack.
6.Physical Dimensions	JESD22-B 100	Verify physical dimensions to the applicable product detail specification.	Per product specification standard
7.Resistance to solvents	MIL-STD-202 Method 215	Immerse into solvent for 3±0.5 minutes & brush 10 times for 3 cycles.	1.No body change in apperarance. 2.No marking blurred. 3.Inductance shall not change more than ±10%.
8.Vibration Test	MIL-STD-202 Method 204	1.Frequency and Amplitued : 10-2000-10 Hz, 1.5 mm. 2.Direction:X, Y, Z 3.Test duration:2 hours for each direction, 6 hours in total.	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%.
9.Resistance To Soldering Heat Test	MIL-STD-202 Method 210 & J-STD020D.1	1.Highest temperature：260±5℃. 2.Time（ temp.≧ 217℃ ）：60~150 Seconds. 3.IR reflow times：3 times.	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%.
10.Saturation Current	JIS C 6436 & User SPEC.	1.Applied rated current for 5 seconds. 2.Saturation current	Inductance shall not drop more than 10% typ.
11.Over load	JIS C 6436 & User SPEC.	1.Applied one and half rated current for a period of 5 minutes. 2.Rated current	No electrical or mechanical damage
12.Temperature Rise Current	JIS C 6436 & User SPEC.	1.Applied rated current for 10 minutes. 2.Temperature measure by digital surface thermometer. 3.Irms current	Surface temperature rise is less than 40 ℃ typ.
13.Solderability Test	J-STD-002 & JESD22-B 102	1.Baking in pre-testing： 150±5℃ / 16Hours±30 min. 2.Peak temperature：240±5℃ 3.Time（ temp.≧217℃ ）：60~150 seconds. 4.IR reflow times：1 time.	More than 95% soldering coverage min on terminations.
14.Electrical Characteriazation	MIL-STD-202 Method 304 & User SPEC.	1.Operating temperature：-40℃~125℃ 2.Room temperature：25℃.	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%.
15.Drop	CNS-C6354 & GB/T 2423.8	1.Products shall be mounted on SPEC. pcb and dropped down from a heigh of 1m 2.Drop total time：6 times (Every side ofsample drop 2 times)	1. Adhesion on PCB shall be enough. 2. Product appearance shall not break. 3. No electrical damage.
16.Terminal Strength Test	IEC 60068-2-21	1.Apply push force to samples mounted on PCB. 2.Force of 1.8 kg for 60±1 seconds.	After test, inductors shall be no mechanical damage.