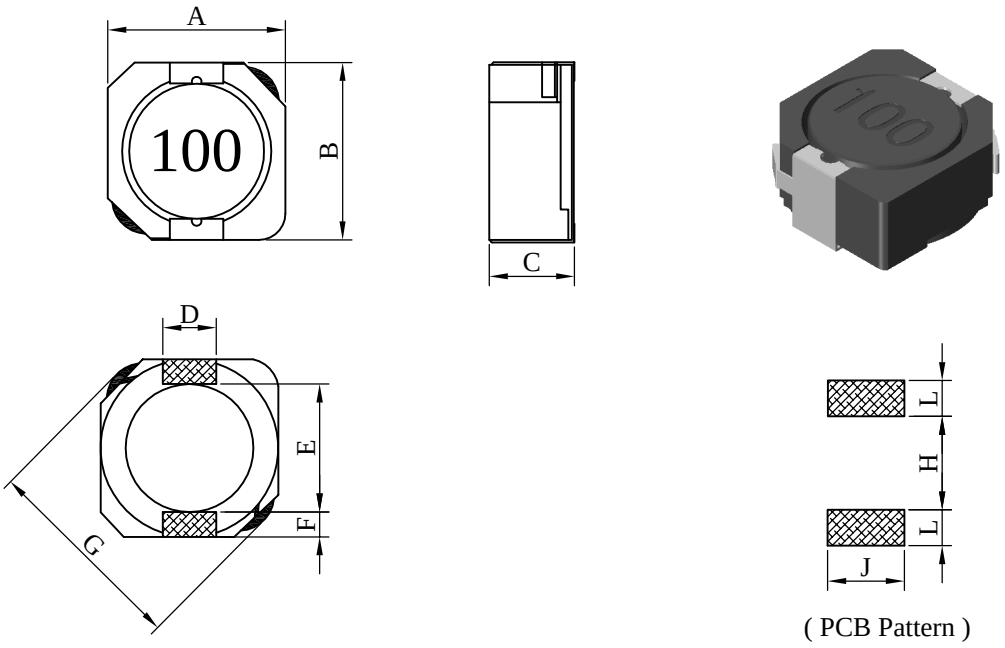
SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	CU1048□□□□L□-□□□		
		REV.	20170106-E	PAGE	1

Ⅰ．Configuration and dimensions：



(PCB Pattern)

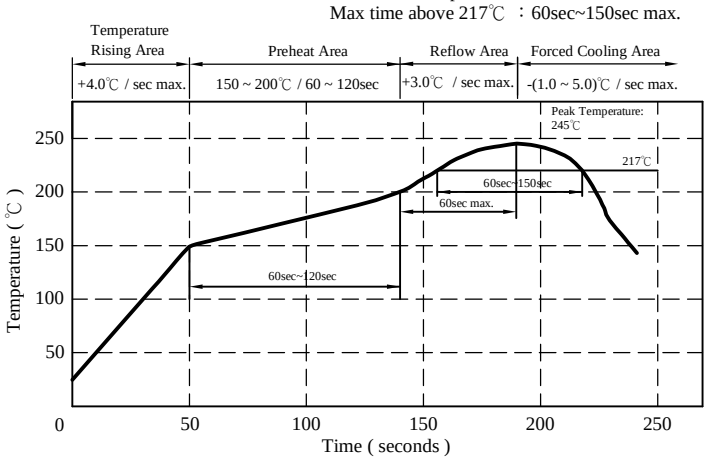
Unit：m/m

A	B	C	D	E	F	G	H	J	L
10.00±0.3	10.20±0.3	4.80±0.3	3.00±0.3	7.80±0.4	1.20±0.15	13.00 ref.	7.30 ref.	3.20 ref.	1.60 ref.

Ⅱ．Description：

a．Ferrite drum core construction.
b．Magnetically shielded.
c．Enamelled copper wire：H class
d．Product weight： 1.850g（ref.）
e．Moisture sensitivity Level 1
f．Products comply with RoHS' requirements
g．Halogen free

Peak Temp：245℃ 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：245℃.10 secs.

SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	CU1048□□□□L□-□□□		
		REV.	20170106-E	PAGE	2

Ⅳ．Electrical characteristics：

DWG No.	Inductance (μH)	R.D.C. (mΩ)		Isat (A)	Irms (A)
		typ.	max.	typ.	typ.
CU1048R80YL□-□□□	0.8±30%	3.7	5.0	13.5	9.50
CU10481R5YL□-□□□	1.5±30%	4.9	7.0	10.5	8.30
CU10482R2YL□-□□□	2.2±30%	5.8	8.0	8.20	7.20
CU10483R3YL□-□□□	3.3±30%	7.9	11.0	7.80	6.50
CU10484R7YL□-□□□	4.7±30%	10.4	14.1	6.40	6.10
CU10486R8YL□-□□□	6.8±30%	14.0	19.0	5.40	5.40
CU10488R2YL□-□□□	8.2±30%	17.0	22.0	4.85	5.00
CU1048100YL□-□□□	10.0±30%	23.0	31.0	4.45	4.50
CU1048120YL□-□□□	12.0±30%	26.0	35.0	4.00	3.80
CU1048150YL□-□□□	15.0±30%	35.0	47.0	3.60	3.40
CU1048180YL□-□□□	18.0±30%	38.0	51.0	3.20	3.10
CU1048220YL□-□□□	22.0±30%	46.0	62.0	2.95	2.90
CU1048270YL□-□□□	27.0±30%	57.0	77.0	2.70	2.60
CU1048330YL□-□□□	33.0±30%	69.0	93.0	2.40	2.50
CU1048390YL□-□□□	39.0±30%	79.0	106.0	2.30	2.25
CU1048470YL□-□□□	47.0±30%	94.0	127.0	2.00	2.00
CU1048560YL□-□□□	56.0±30%	124.0	160.0	1.90	1.90
CU1048680YL□-□□□	68.0±30%	138.0	208.0	1.65	1.60
CU1048820YL□-□□□	82.0±30%	150.0	230.0	1.50	1.45
CU1048101YL□-□□□	100.0±30%	179.0	255.0	1.35	1.35
CU1048121YL□-□□□	120.0±30%	213.0	305.0	1.28	1.18
CU1048151YL□-□□□	150.0±30%	253.0	370.0	1.12	1.10
CU1048181YL□-□□□	180.0±30%	307.0	420.0	1.04	1.00
CU1048221YL□-□□□	220.0±30%	373.0	500.0	0.94	0.94
CU1048271YL□-□□□	270.0±30%	491.0	675.0	0.84	0.80
CU1048331YL□-□□□	330.0±30%	613.0	815.0	0.75	0.73

1). Electrical specifications at 25℃

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

3). Isat base on △ L/L0A＝35％ typ.

4). Irms base on Temp. rise 40℃ typ.

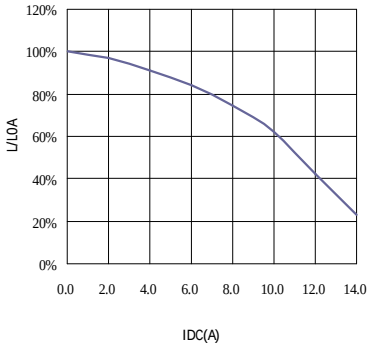
SPECIFICATION FOR APPROVAL

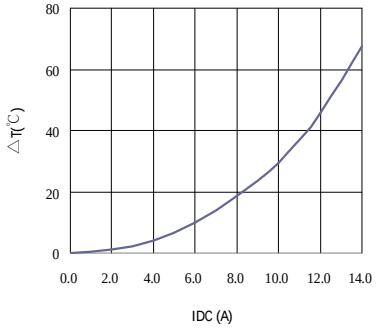
REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	CU1048□□□□L□-□□□		
		REV.	20170106-E	PAGE	3

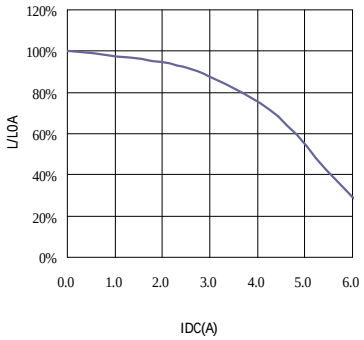
V ．Curve：

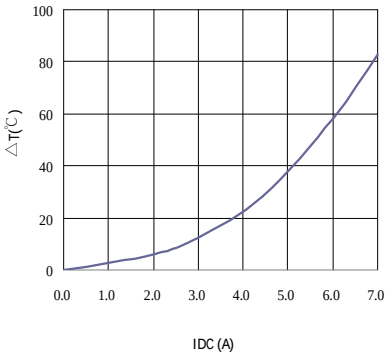
CU10482R2YL□



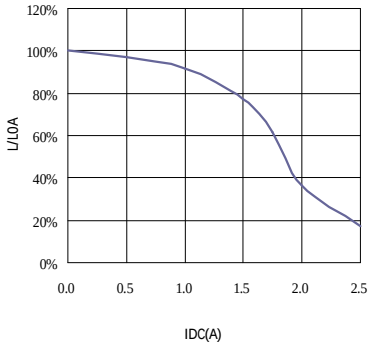


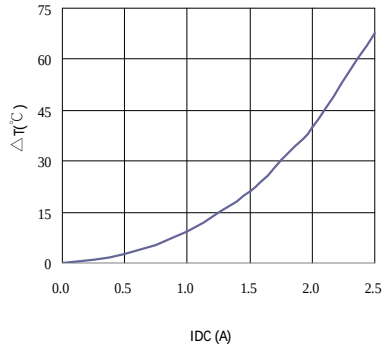
CU1048100YL□



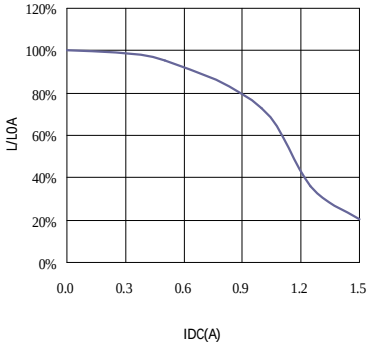


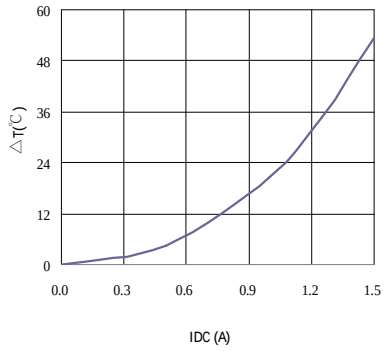
CU1048820YL□





CU1048221YL□





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ABC-ATEC ELECTRONICS GROUP

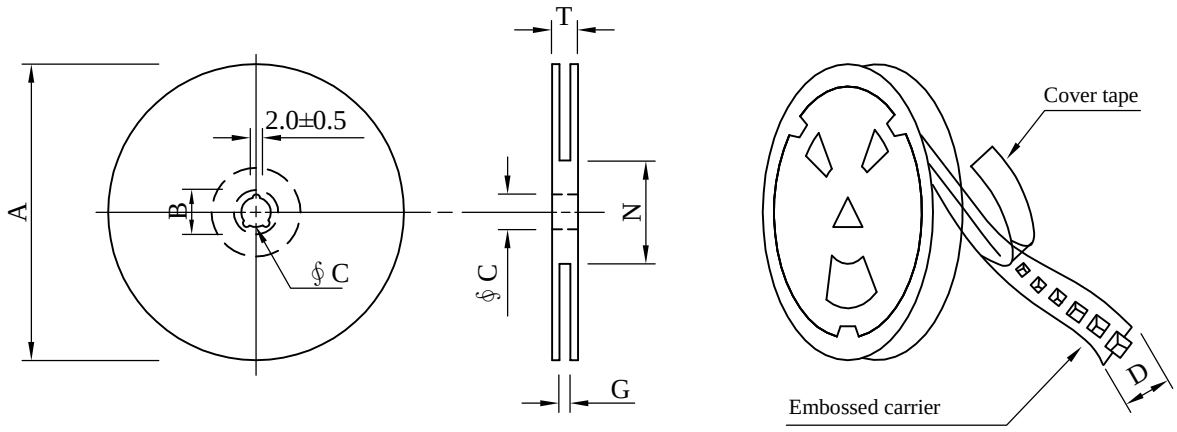
SPECIFICATION FOR APPROVAL

REF. :

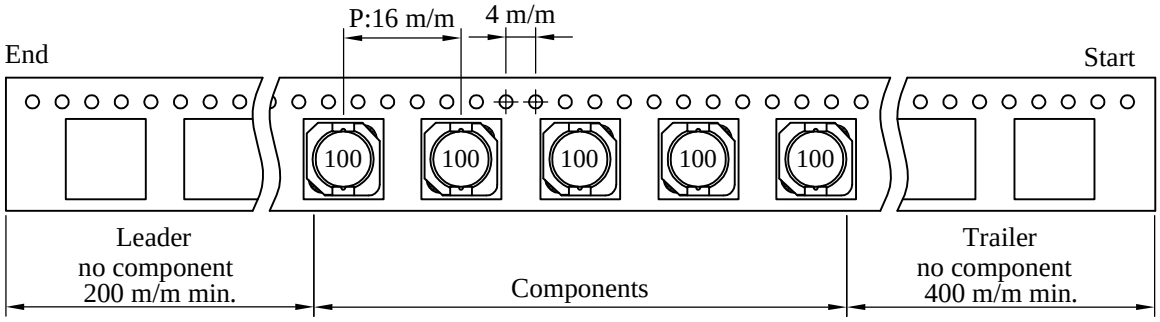
PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	CU1048□□□□L□-□□□		
		REV.	20170106-E	PAGE	4

Ⅵ．Packaging information：

(1) Configuration



※Carrier tape width : D



User direction of feed

(2) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
13 - 24	330	21±0.8	13±0.5	24	26^{+0}	60^{-0}	30.4

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

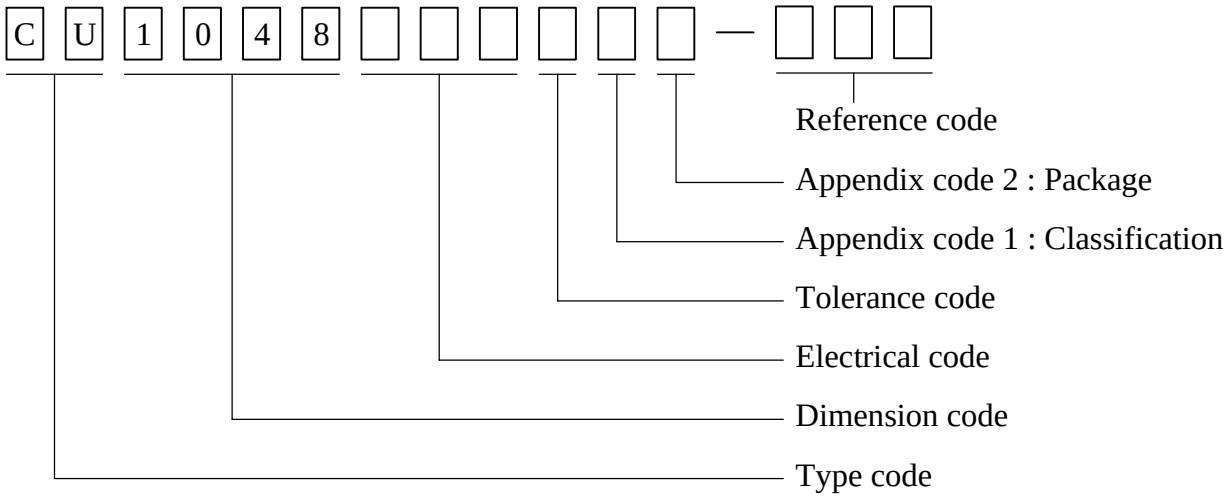
Code	Inner : Reel			Outer : Carton		
	Q'TY (pcs)	G.W. (g)	Style	Q'TY (pcs)	G.W. (Kg)	Size (cm)
B	700	1300	13 - 24	2,800	7.5	38 x 37 x 22

SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	CU1048□□□□L□-□□□		
		REV.	20170106-E	PAGE	5

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	Antistatic	Antistatic	700 pcs	

SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	CU1048□□□□L□-□□□		
		REV.	20170106-E	PAGE	6

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 ±20%.
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 ±20%.
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 ±20%.
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 ±20%.
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 ±20%.
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 ±20%.
9.Resistance To Soldering Heat Test	MIL-STD-202 Method 210 & J-STD020D.1	1.Highest temperature：245±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 ±20%.
10.Saturation Current	JIS C 6436 & User SPEC.	1.Applied rated current for 5 second. 2.Saturation current	Inductance shall not drop more than 35% 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 ±20%.
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.

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REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	CU1048□□□□L□-□□□		
		REV.	20170106-E	PAGE	7

Ⅸ．Change history：

DATE/REV.	DISCRIPTION	DRAWN	CHECKED	APPROVED
20111018-A	Released	Leo Liang	Nick Chen	Nick Chen
20120917-B	1. Modify the Reliability test 2. Modify the Packaging N dimension from 50^{-0} m/m to 60^{-0} m/m			
20131007-C	Add the IDC Curve			
20140410-D	Change the Enamelled copper wire：F class → H class			
20170106-E	1. Modify the Reliability test 2. Add Change history and Dwging number expression	Leo Liang	Nick Chen	Nick Chen