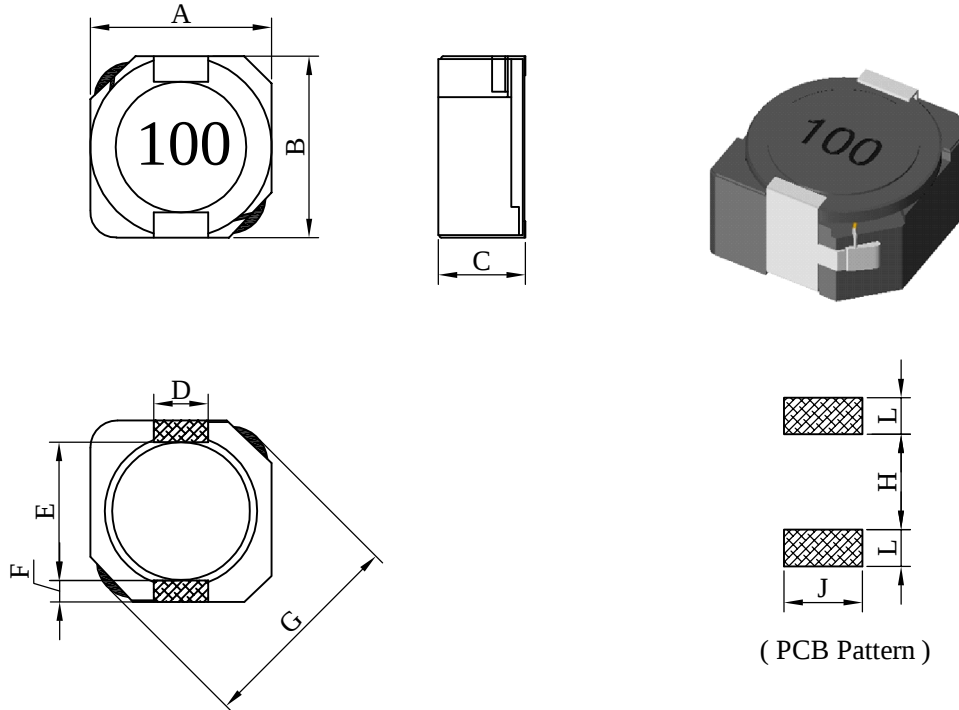


SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.		CU1048□□□□F□-□□□		
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I . Configuration and dimensions :



(PCB Pattern)

Unit : mm

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.

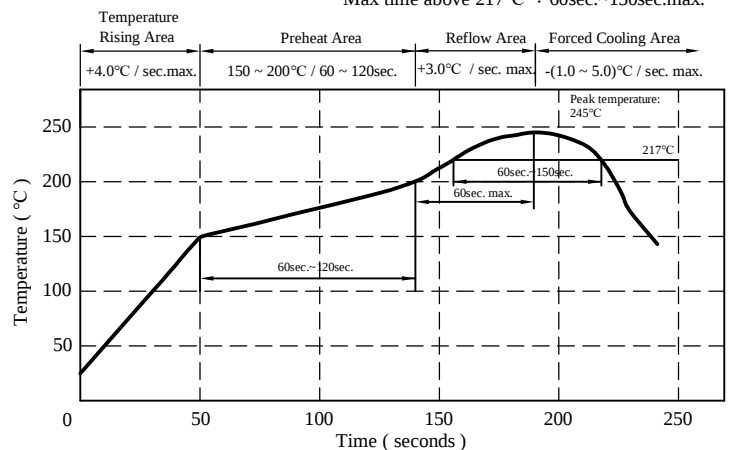
II . Description :

- 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

III . General specification :

- a . Storage temp. : -55°C ----+150°C
- b . Operating temp. : -55°C----+150°C
(Temp. rise included.)
- c . Resistance to solder heat : 260°C.10 sec.

Peak temp. : 245°C max.
Max. peak temp. - 5°C : 30sec.max.
Max time above 217°C : 60sec.~150sec.max.



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IV . Electrical characteristics :

DWG. No.	Inductance (μ H)	R.D.C. ($m\Omega$)		Isat (A) typ.	Irms (A) typ.
		typ.	max.		
CU1048R80YF□-□□□	0.8±30%	3.7	5.0	13.5	9.50
CU10481R5YF□-□□□	1.5±30%	4.9	7.0	10.5	8.30
CU10482R2YF□-□□□	2.2±30%	5.8	8.0	8.20	7.20
CU10483R3YF□-□□□	3.3±30%	7.9	11.0	7.80	6.50
CU10484R7YF□-□□□	4.7±30%	10.4	14.1	6.40	6.10
CU10486R8YF□-□□□	6.8±30%	14.0	19.0	5.40	5.40
CU10488R2YF□-□□□	8.2±30%	17.0	22.0	4.85	5.00
CU1048100YF□-□□□	10.0±30%	23.0	31.0	4.45	4.50
CU1048120YF□-□□□	12.0±30%	26.0	35.0	4.00	3.80
CU1048150YF□-□□□	15.0±30%	35.0	47.0	3.60	3.40
CU1048180YF□-□□□	18.0±30%	38.0	51.0	3.20	3.10
CU1048220YF□-□□□	22.0±30%	46.0	62.0	2.95	2.90
CU1048270YF□-□□□	27.0±30%	57.0	77.0	2.70	2.60
CU1048330YF□-□□□	33.0±30%	69.0	93.0	2.40	2.50
CU1048390YF□-□□□	39.0±30%	79.0	106.0	2.30	2.25
CU1048470YF□-□□□	47.0±30%	94.0	127.0	2.00	2.00
CU1048560YF□-□□□	56.0±30%	124.0	160.0	1.90	1.90
CU1048680YF□-□□□	68.0±30%	138.0	208.0	1.65	1.60
CU1048820YF□-□□□	82.0±30%	150.0	230.0	1.50	1.45
CU1048101YF□-□□□	100.0±30%	179.0	255.0	1.35	1.35
CU1048121YF□-□□□	120.0±30%	213.0	305.0	1.28	1.18
CU1048151YF□-□□□	150.0±30%	253.0	370.0	1.12	1.10
CU1048181YF□-□□□	180.0±30%	307.0	420.0	1.04	1.00
CU1048221YF□-□□□	220.0±30%	373.0	500.0	0.94	0.94
CU1048271YF□-□□□	270.0±30%	491.0	675.0	0.84	0.80
CU1048331YF□-□□□	330.0±30%	613.0	815.0	0.75	0.73

- 1). Electrical specifications at 25°C
- 2). Inductance test condition. : 100kHz / 0.1V
- 3). Isat base on $\Delta L/L0A = 35\%$ typ.
- 4). Irms base on temp. rise 40°C typ.

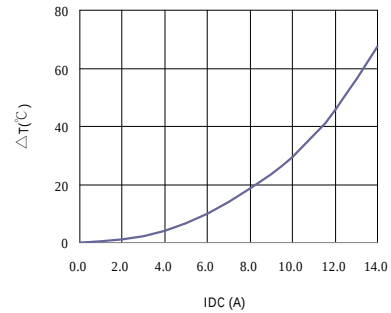
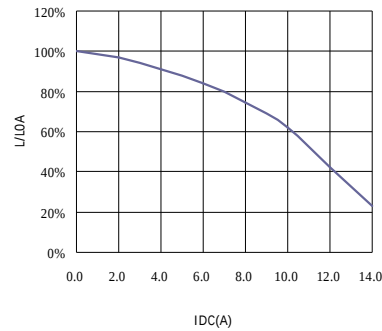
SPECIFICATION FOR APPROVAL

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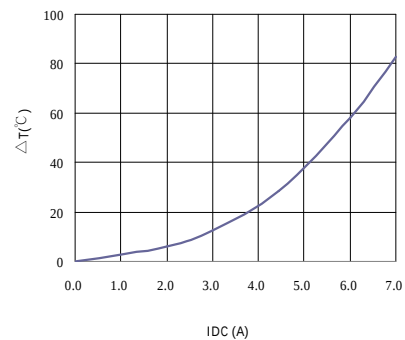
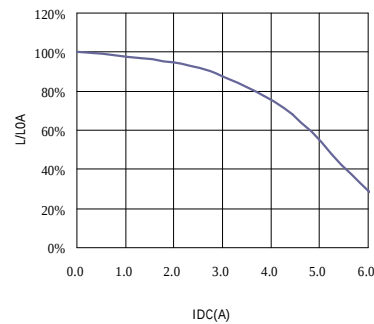
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V . Curve :

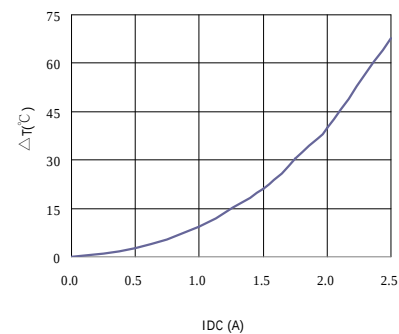
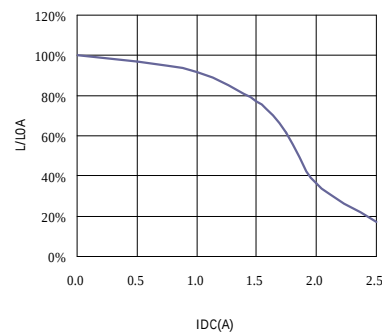
CU10482R2YF□



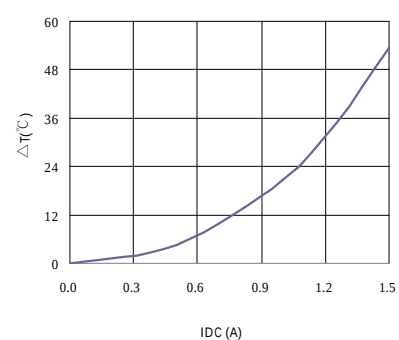
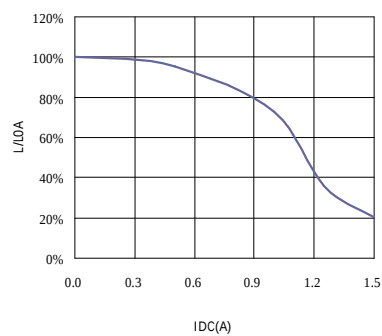
CU1048100YF□



CU1048820YF□



CU1048221YF□



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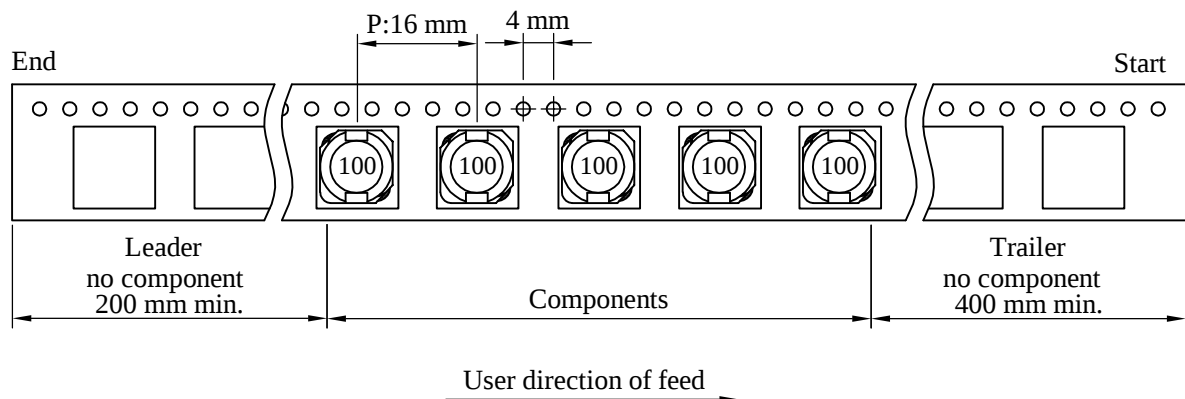
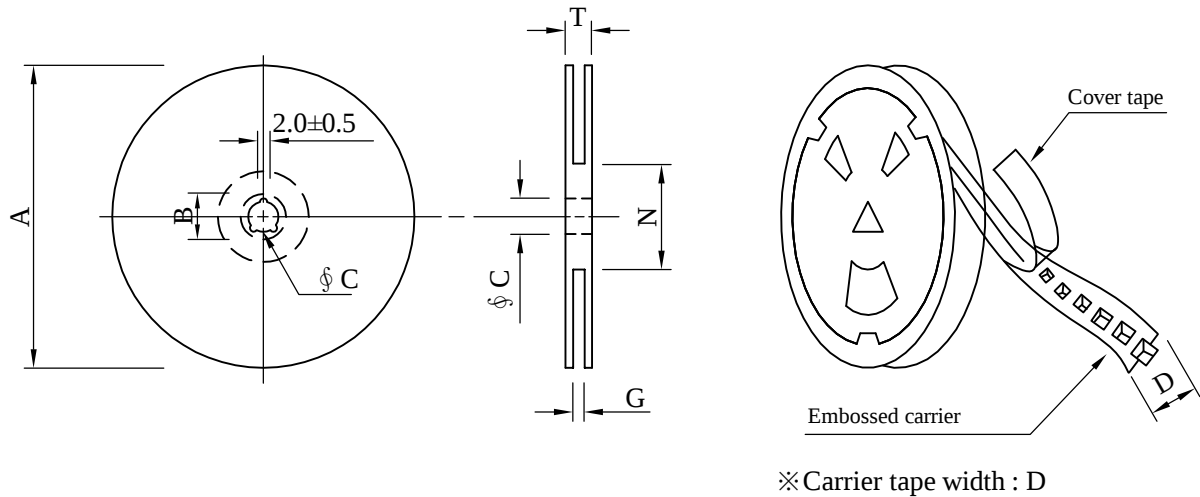
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VI . Packaging information :

(1) Configuration



(2) Dimensions

Unit:mm

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	1,300	13 - 24	2,800	7.5	38 x 37 x 22

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VII . Drawing number expression :

C	U	1	0	4	8								—			
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Reference code

Appendix code 2 : Package

Appendix code 1 : Classification

Tolerance code

Electrical code

Dimension code

Type code

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	

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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: 150°C 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: -55°C ~ 150°C 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 °C 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: 150°C(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 apperaranace. 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°C. 2.Time (temp.≥ 217°C) : 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°C typ.
13.Solderability Test	J-STD-002 & JESD22-B 102	1.Baking in pre-testing : 150±5°C / 16Hours±30 min. 2.Peak temperature : 240±5°C 3.Time (temp.≥217°C) : 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 : -55°C~150°C 2.Room temperature : 25°C.	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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IX . Change history :						
DATE/REV.	DISCRIPTION	DRAWN	CHECKED	APPROVED		
20200811-A	New Release	Louis	Weini	Lock		