SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	BF0704□□□□L□-□□□		
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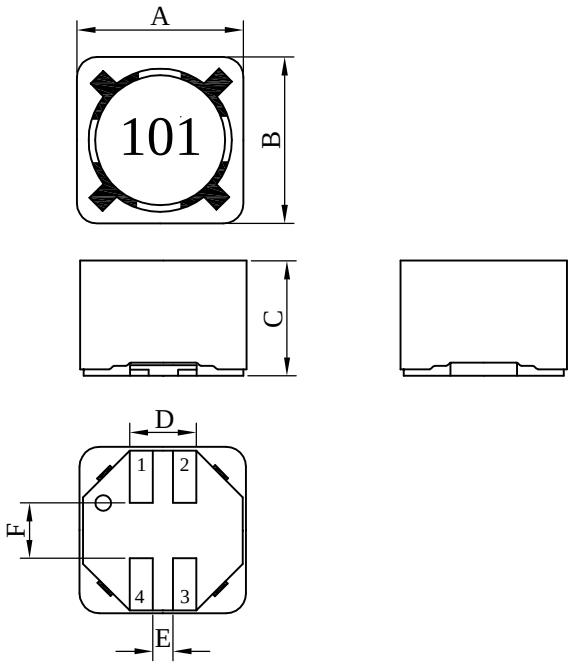
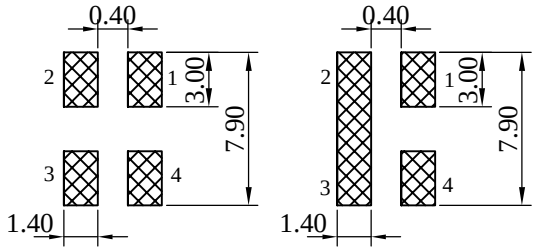
Ⅰ．Configuration and dimensions：





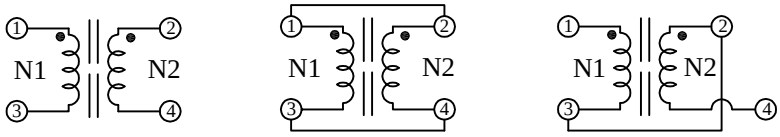
Dual inductor Mode　　Series Mode

(PCB Pattern)

Unit：m/m

A	B	C	D	E	F
7.60 max.	7.60 max.	4.40±0.2	2.60 typ.	1.00 typ.	2.70 typ.

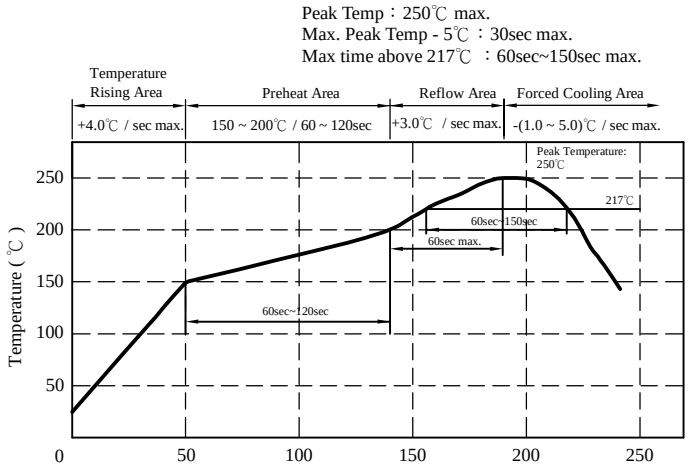
Ⅱ．Schematic diagram：



Parallel　　Series

Ⅲ．Description：

a．Ferrite drum core construction.
b．Magnetically shielded.
c．Enamelled copper wire：H class
d．Product weight： 0.85g（ref.）
e．Moisture sensitivity Level 1
f．Products comply with RoHS' requirements
g．Halogen free available



Ⅳ．General specification：

a．Storage temp.：-40℃ ----+125℃
b．Operating temp.：-40℃----+125℃
(Temp. rise included.)
c．Ressistance to solder heat：250℃．10 secs.

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Ⅴ．Electrical characteristics：

	Parallel Ratings				Series Ratings			
DWG No.	Inductance (μH)	RDC (mΩ) max.	Isat (A) typ.	Irms (A) typ.	Inductance (μH)	RDC (mΩ) max.	Isat (A) typ.	Irms (A) typ.
BF0704100ML□-□□□	10.0 ± 20%	77.8	3.17	2.05	40.0 ± 20%	307.0	1.58	1.00
BF0704150ML□-□□□	15.0 ± 20%	100.0	2.48	1.80	60.0 ± 20%	410.0	1.24	0.90
BF0704220ML□-□□□	22.0 ± 20%	140.0	2.13	1.45	88.0 ± 20%	560.0	1.07	0.70
BF0704330ML□-□□□	33.0 ± 20%	190.0	1.73	1.25	132.0 ± 20%	750.0	0.87	0.60
BF0704470ML□-□□□	47.0 ± 20%	270.0	1.41	1.05	188.0 ± 20%	1080.0	0.71	0.50
BF0704680ML□-□□□	68.0 ± 20%	380.0	1.19	0.90	272.0 ± 20%	1390.0	0.60	0.45
BF0704820ML□-□□□	82.0 ± 20%	430.0	1.11	0.80	328.0 ± 20%	1580.0	0.55	0.40
BF0704101ML□-□□□	100.0 ± 20%	560.0	0.99	0.70	400.0 ± 20%	2060.0	0.49	0.35
BF0704151ML□-□□□	150.0 ± 20%	800.0	0.81	0.60	600.0 ± 20%	2900.0	0.41	0.30
BF0704221ML□-□□□	220.0 ± 20%	1080.0	0.66	0.50	880.0 ± 20%	4300.0	0.33	0.25
BF0704331ML□-□□□	330.0 ± 20%	1600.0	0.54	0.40	1320.0 ± 20%	6300.0	0.27	0.20
BF0704471ML□-□□□	470.0 ± 20%	2280.0	0.46	0.35	1880.0 ± 20%	9000.0	0.23	0.17
BF0704681ML□-□□□	680.0 ± 20%	3430.0	0.38	0.30	2720.0 ± 20%	13600.0	0.19	0.14
BF0704821ML□-□□□	820.0 ± 20%	4300.0	0.35	0.25	3280.0 ± 20%	17100.0	0.17	0.12
BF0704102ML□-□□□	1000.0 ± 20%	5430.0	0.31	0.22	4000.0 ± 20%	21600.0	0.16	0.11

1). □：Packaging information： □ Code

2)."-□□□ "：Reference code

3). Electrical specifications at 25℃

4). L Test Freq.：100kHz / 0.25V

5). Isat base on △ L/L0A＝30％ typ. (Approximately transient current)

6). Irms base on Temp. rise 40℃ typ.

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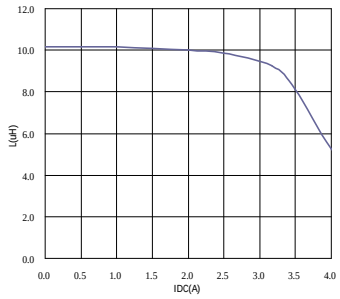
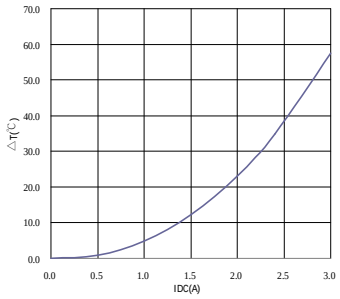
Ⅵ． Curve：(In Parallel)

BF0704100ML□





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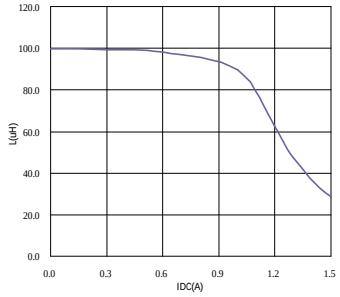

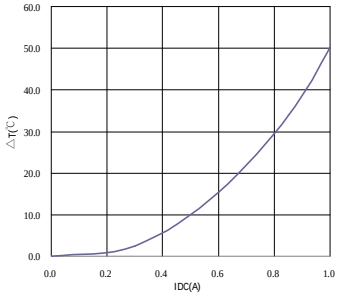

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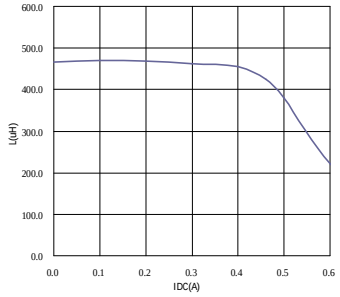
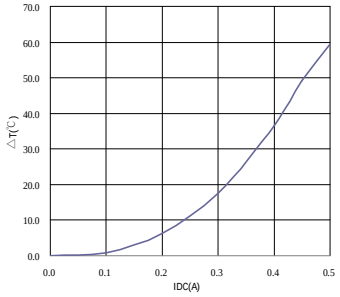
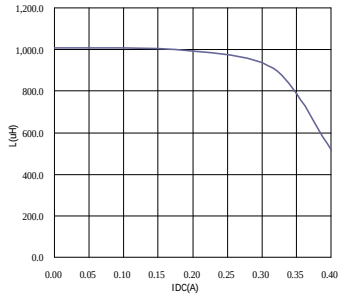
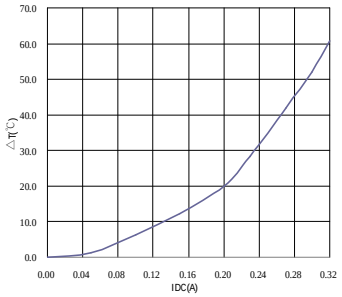




BF0704102ML□





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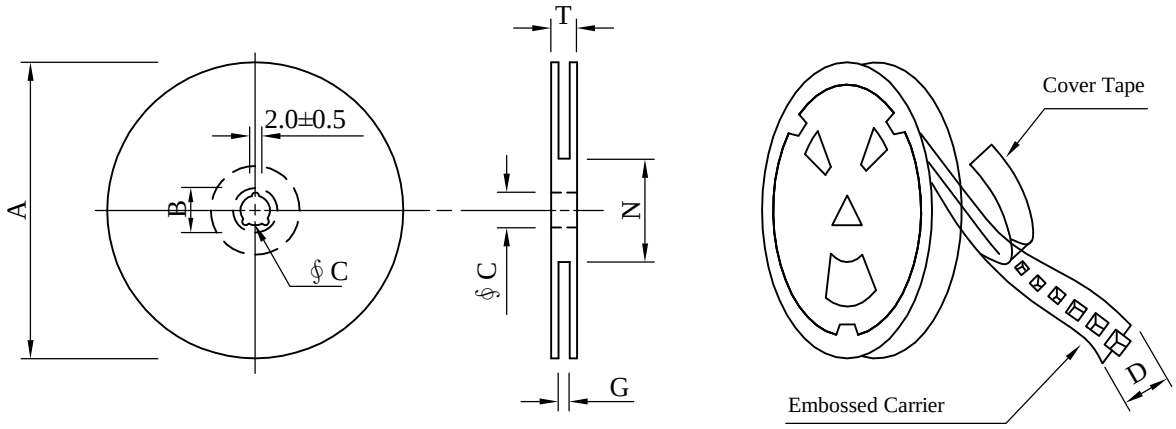
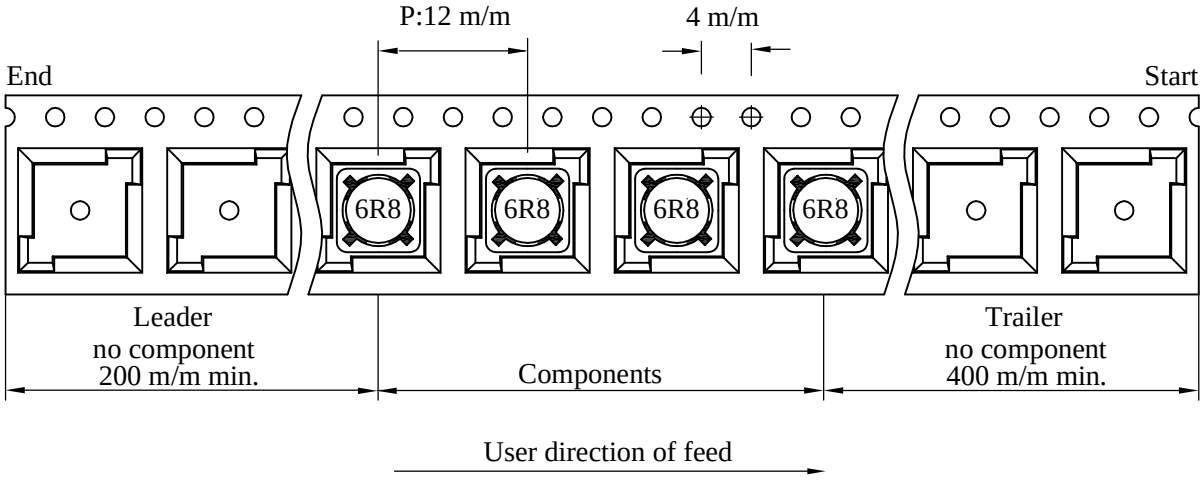
Ⅶ．Packaging information：

(1) Configuration



※Carrier Tape Width : D



(2) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
13 - 16	330	21±0.8	13±0.5	16	18^{+0}	50^{-0}	22.4

(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	1,000	825	13 - 16	6,000	5.80	38 x 37 x 22

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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 ±20%.
2.Temperature Cycling	JESD22-A 104	1.Temperature: -40℃ ~ +125℃ 2.Number of cycle:100 cycle 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：250±5℃. 2.Time（temp.≧ 217℃）：60~150 Second. 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 30% 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 second. 4.IR reflow times：1 times.	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 height of 1m 2.Drop total time：6 time (Every side of sample drop 2 time)	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.