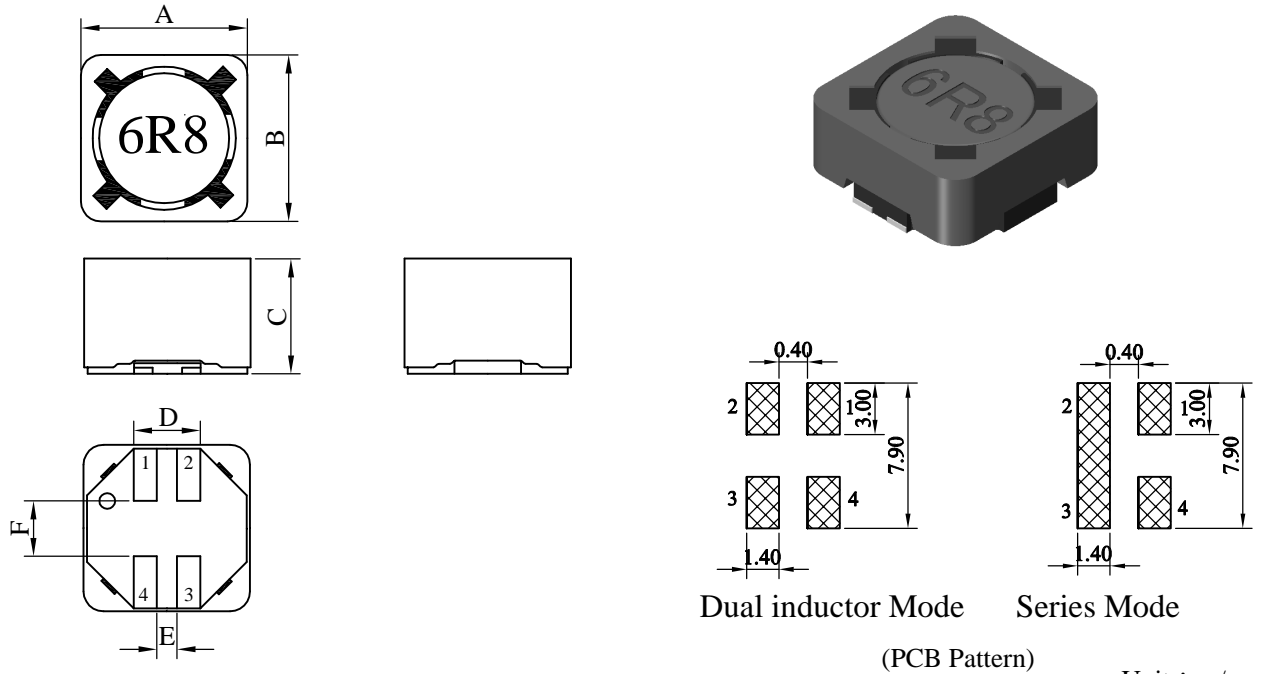


# SPECIFICATION FOR APPROVAL

REF. :

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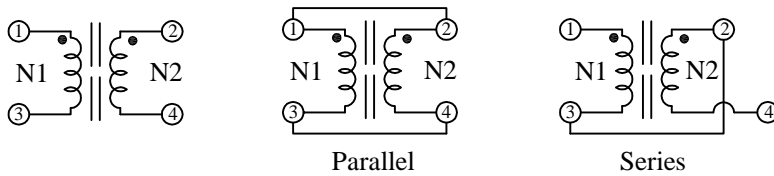
**I . Configuration and dimensions :**



Unit : m/m

A	B	C	D	E	F
7.60 max.	7.60 max.	3.40±0.2	2.60 typ.	1.00 typ.	2.70 typ.

**II . Schematic diagram :**



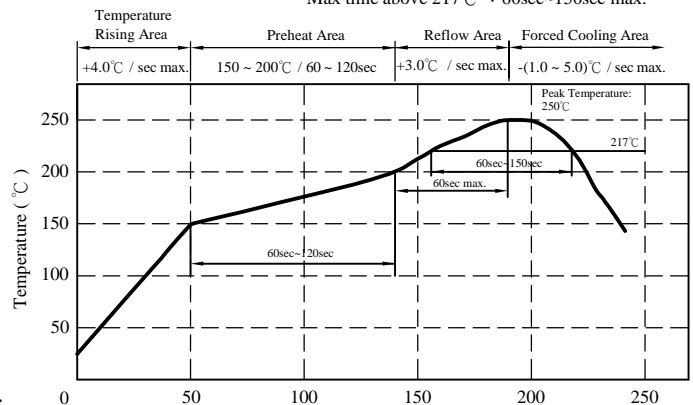
**III . Description :**

- a . Ferrite drum core construction.
- b . Magnetically shielded.
- c . Enamelled copper wire : H class
- d . Product weight : 0.590g ( ref. )
- e . Moisture sensitivity Level 1
- f . Products comply with RoHS' requirements
- g . Halogen free available

**IV . General specification :**

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

Peak Temp : 250°C max.  
Max. Peak Temp - 5°C : 30sec max.  
Max time above 217°C : 60sec~150sec max.



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V . Electrical characteristics :

DWG No.	Parallel Ratings				Series Ratings			
	Inductance ( $\mu$ H)	RDC ( $m\Omega$ ) max.	Ipeak (A) typ.	Irms (A) typ.	Inductance ( $\mu$ H)	RDC ( $m\Omega$ ) max.	Ipeak (A) typ.	Irms (A) typ.
BF0703R33ML□-□□□	0.33 $\pm$ 20%	9.2	14.40	6.19	1.34 $\pm$ 20%	40	7.18	3.100
BF07031R0ML□-□□□	1.00 $\pm$ 20%	13.5	7.97	5.25	3.86 $\pm$ 20%	72	3.99	2.630
BF07031R5ML□-□□□	1.50 $\pm$ 20%	19.1	6.52	4.64	5.83 $\pm$ 20%	110	3.26	2.320
BF07032R2ML□-□□□	2.20 $\pm$ 20%	21.7	5.52	4.11	8.13 $\pm$ 20%	132	2.76	2.060
BF07033R3ML□-□□□	3.30 $\pm$ 20%	31.6	4.22	3.31	13.60 $\pm$ 20%	182	2.11	1.660
BF07034R7ML□-□□□	4.70 $\pm$ 20%	40.6	3.78	3.09	17.10 $\pm$ 20%	242	1.89	1.550
BF07036R8ML□-□□□	6.80 $\pm$ 20%	65.8	3.12	2.55	25.50 $\pm$ 20%	285	1.56	1.280
BF07038R2ML□-□□□	8.20 $\pm$ 20%	77.2	2.66	2.19	34.10 $\pm$ 20%	306	1.33	1.100
BF0703100ML□-□□□	10.00 $\pm$ 20%	82.6	2.47	2.08	39.60 $\pm$ 20%	342	1.24	1.040
BF0703150ML□-□□□	15.00 $\pm$ 20%	119.0	2.05	1.83	59.60 $\pm$ 20%	470	1.03	0.916
BF0703220ML□-□□□	22.00 $\pm$ 20%	150.0	1.67	1.62	89.50 $\pm$ 20%	620	0.83	0.811
BF0703330ML□-□□□	33.00 $\pm$ 20%	240.0	1.35	1.31	140.50 $\pm$ 20%	1000	0.68	0.653
BF0703470ML□-□□□	47.00 $\pm$ 20%	338.0	1.14	1.08	194.20 $\pm$ 20%	1280	0.57	0.542
BF0703680ML□-□□□	68.00 $\pm$ 20%	507.0	0.96	0.89	289.30 $\pm$ 20%	1920	0.48	0.444
BF0703820ML□-□□□	82.00 $\pm$ 20%	610.0	0.89	0.86	324.70 $\pm$ 20%	2280	0.44	0.430
BF0703101ML□-□□□	100.00 $\pm$ 20%	715.0	0.79	0.73	397.60 $\pm$ 20%	2640	0.39	0.367
BF0703151ML□-□□□	150.00 $\pm$ 20%	986.0	0.65	0.58	608.20 $\pm$ 20%	3630	0.32	0.289
BF0703221ML□-□□□	220.00 $\pm$ 20%	1480.0	0.53	0.52	922.60 $\pm$ 20%	5500	0.27	0.260
BF0703331ML□-□□□	330.00 $\pm$ 20%	2160.0	0.44	0.42	1335.00 $\pm$ 20%	8250	0.22	0.211
BF0703471ML□-□□□	470.00 $\pm$ 20%	2820.0	0.37	0.35	1859.00 $\pm$ 20%	11220	0.18	0.173
BF0703681ML□-□□□	680.00 $\pm$ 20%	3960.0	0.31	0.29	2930.00 $\pm$ 20%	16170	0.15	0.143
BF0703821ML□-□□□	820.00 $\pm$ 20%	5010.0	0.28	0.27	3559.00 $\pm$ 20%	20070	0.14	0.134
BF0703102ML□-□□□	1000.00 $\pm$ 20%	6110.0	0.25	0.26	4120.00 $\pm$ 20%	24420	0.13	0.128

- 1). □ : Packaging information : □ Code
- 2). "-□□□" : Reference code
- 3). Electrical specifications at 25°C
- 4). L Test Freq. : 100KHz / 0.25V
- 5). Irms base on Temp. rise 40°C typ.
- 6). Ipeak : Approximately transient current is 30% typ.

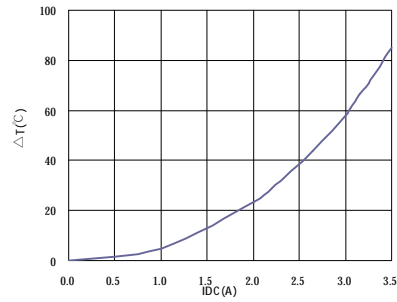
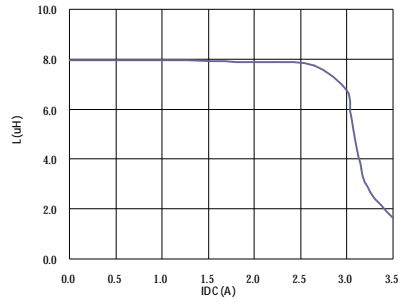
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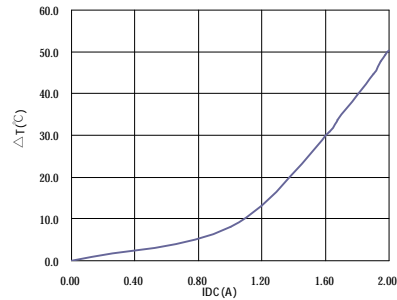
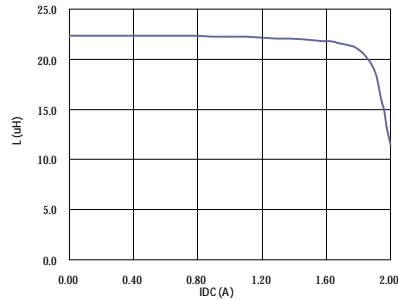
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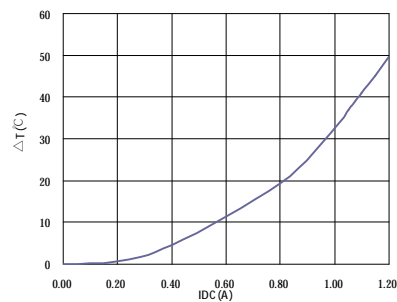
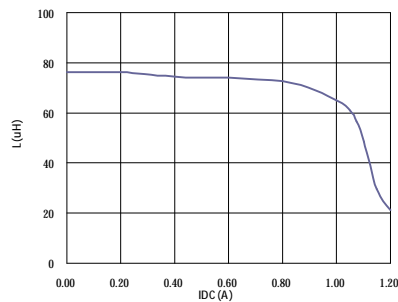
VI . Curve : ( In Parallel )  
BF07038R2ML□



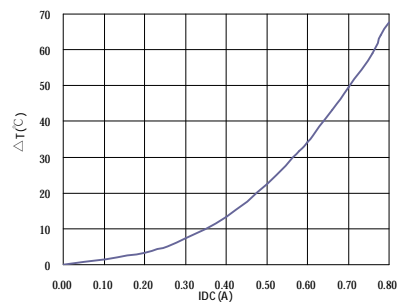
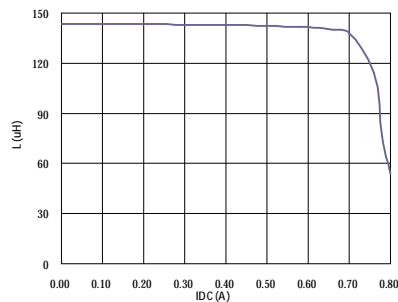
BF0703220ML□



BF0703680ML□



BF0703151ML□



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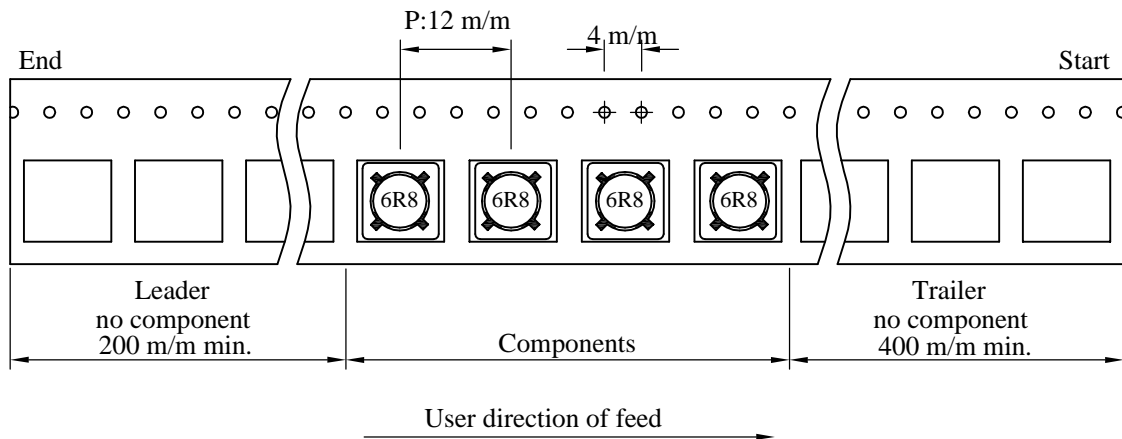
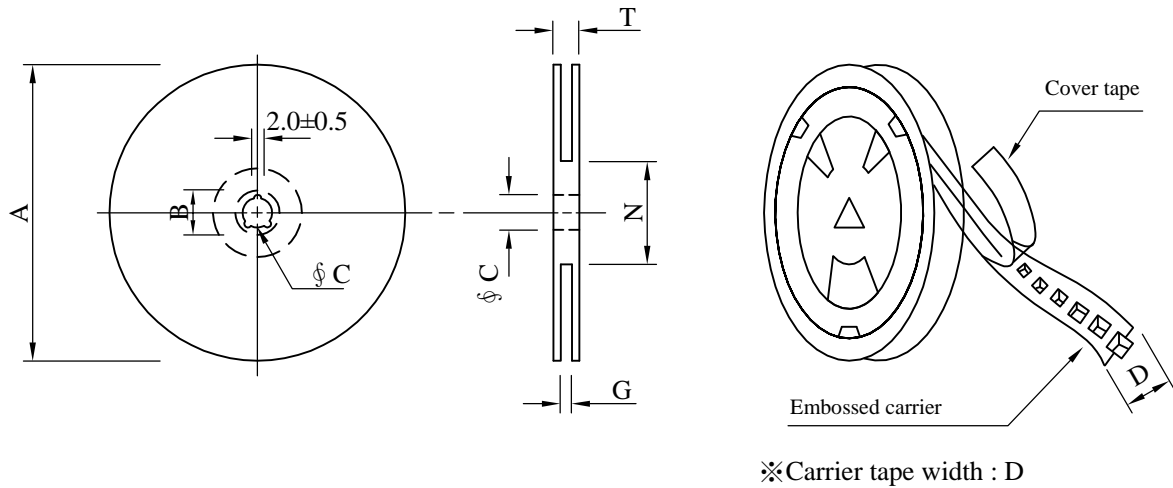
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## VII . Packaging information :

### (1) Configuration



### (2) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
13 - 16	330	21±0.8	13±0.5	16	18 <sup>+0</sup>	50 <sup>-0</sup>	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	1,500	1250	13 - 16	9,000	17.0	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°C 2.Time:96 hours.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±20%.
2.Temperature Cycling	JESD22 Method JA-104	1.Temperature: -40°C ~ 125°C 2.Number of cycle:96 cycle 3.Dwell time:30 minutes	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±20%.
3.Biased Humidity Test	MIL-STD-202 Method 103	1.Temperature: 85±5 °C 2.Time:96 Hours 3.Humidity: 85±5% RH.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±20%.
4.Operational Life	MIL-PRF-27	1.Temperature: 125°C 2.Time:96 hours. 3.Apply rated current.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±20%.
5.Exeternal Visual	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 Method JB-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 apperarence. 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 and electrical damage. 2.Inductance shall not change more than ±20%.
9.Resistance To Soldering Heat Test	MIL-STD-202 Method 210	1.Highest temperature : 250±5°C 2.Time ( temp. ≥ 217°C ) : 60~150 Second. 3.IR reflow times : 3 times.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±20%.
10.Rated current	MIL-STD-202 Method 330	Apply rated current for 5 second.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±20%.
11.Temperature rise	MIL-PRF-27	Apply rated current for 10 minutes.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±20%.
12.Over load	MIL-PRF-27	Apply double as rated current for 5 minutes. (It's not application to some special design)	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±20%.
13.Solderability Test	J-STD-002	1.Baking in pre-testing : 155±5°C / 16Hours±30 min. 2.Peak temperature : 240±5°C 3.Time ( temp. ≥ 217°C ) : 60~150 second. 4.IR reflow times : 1 times.	The terminal shall be at least 95% covered with fresh solder.
14.Electrical Characteriazation	User Spec.	1.Operating temperature : -40°C~125°C 2.Room temperature : 25°C.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±20%.
15.Withstanding Voltage Test	MIL-STD-202 Method 201	1.DC:500V 2.Time:1minutes	1.During the test no breakdown. 2.The characteristic is normal after test.
16.Drop	JESD22-B111	Packaged & Drop down from 1m.In 1 angle 1ridges & 2 surfaces orientation.	1.No case deformation or change in appearance. 2.Inductance shall not change more than ±20%.
17.Terminal Strength Test	JIS-C-6429	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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