SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	BS0704□□□□S□-□□□		
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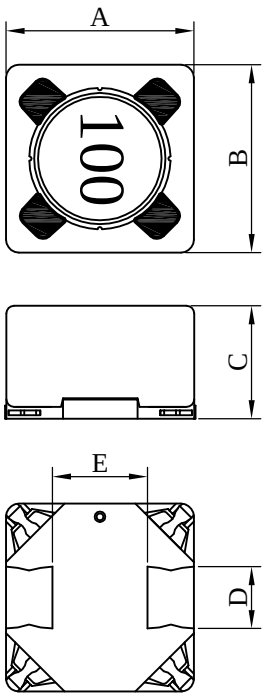
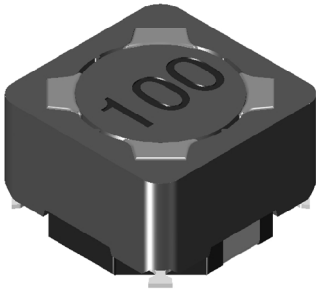
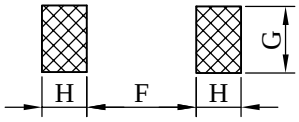
Ⅰ．Configuration and dimensions：







（PCB Pattern）

Unit：mm

A	B	C	D	E	F	G	H
7.30 ±0.2	7.30 ±0.2	4.50 ±0.2	2.00 typ.	4.60 typ.	4.80 ref.	2.40 ref.	1.50 ref.

Ⅱ．Description：

a．Ferrite drum core construction

b．Magnetically shielded

c．Enamelled copper wire：H class

d．Product weight：0.88 g（ref.）

e．Moisture sensitivity Level 1

f．Products comply with RoHS' requirements

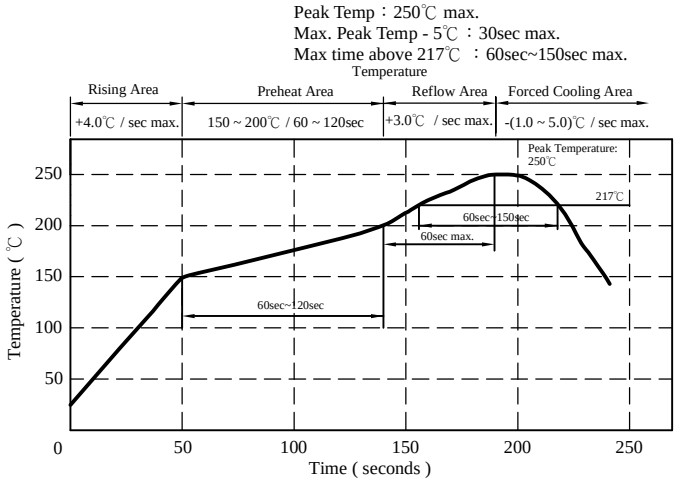
g．Halogen free

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 (uH)	Test Freq. (Hz)	RDC (Ω) max.	Isat (A)	Irms (A)
BS07041R0MS□-□□□	1.0 ±20%	1k/1V	0.013	5.60	5.00
BS07042R2MS□-□□□	2.2 ±20%	1k/1V	0.018	5.00	4.20
BS07043R3MS□-□□□	3.3 ±20%	1k/1V	0.022	4.40	3.80
BS07044R7MS□-□□□	4.7 ±20%	1k/1V	0.028	4.00	3.60
BS07045R6MS□-□□□	5.6 ±20%	1k/1V	0.032	3.40	3.00
BS07046R8MS□-□□□	6.8 ±20%	1k/1V	0.040	3.20	2.80
BS0704100MS□-□□□	10.0 ±20%	1k/1V	0.052	2.50	2.10
BS0704120MS□-□□□	12.0 ±20%	1k/1V	0.062	2.30	2.00
BS0704150MS□-□□□	15.0 ±20%	1k/1V	0.075	2.10	1.90
BS0704180MS□-□□□	18.0 ±20%	1k/1V	0.090	1.95	1.80
BS0704220MS□-□□□	22.0 ±20%	1k/1V	0.096	1.75	1.65
BS0704270MS□-□□□	27.0 ±20%	1k/1V	0.130	1.62	1.45
BS0704330MS□-□□□	33.0 ±20%	1k/1V	0.150	1.45	1.35
BS0704390MS□-□□□	39.0 ±20%	1k/1V	0.190	1.30	1.17
BS0704470MS□-□□□	47.0 ±20%	1k/1V	0.210	1.20	1.05
BS0704560MS□-□□□	56.0 ±20%	1k/1V	0.240	1.10	0.95
BS0704680MS□-□□□	68.0 ±20%	1k/1V	0.300	0.96	0.86
BS0704820MS□-□□□	82.0 ±20%	1k/1V	0.400	0.90	0.78
BS0704101MS□-□□□	100.0 ±20%	1k/1V	0.450	0.78	0.70
BS0704121MS□-□□□	120.0 ±20%	1k/1V	0.550	0.70	0.60
BS0704151MS□-□□□	150.0 ±20%	1k/1V	0.760	0.58	0.48
BS0704181MS□-□□□	180.0 ±20%	1k/1V	0.820	0.54	0.46
BS0704221MS□-□□□	220.0 ±20%	1k/1V	0.950	0.50	0.42
BS0704271MS□-□□□	270.0 ±20%	1k/1V	1.200	0.46	0.38
BS0704331MS□-□□□	330.0 ±20%	1k/1V	1.500	0.40	0.34
BS0704391MS□-□□□	390.0 ±20%	1k/1V	1.850	0.36	0.32
BS0704471MS□-□□□	470.0 ±20%	1k/1V	2.200	0.34	0.29
BS0704561MS□-□□□	560.0 ±20%	1k/1V	2.600	0.30	0.26
BS0704681MS□-□□□	680.0 ±20%	1k/1V	2.800	0.28	0.24
BS0704821MS□-□□□	820.0 ±20%	1k/1V	3.500	0.26	0.22
BS0704102MS□-□□□	1000.0 ±20%	1k/1V	4.100	0.24	0.20

1). Electrical specifications at 25℃

2). Inductance Test Freq :1kHz /1V

3). Isat base on △L / L0A=25% max.(Approximately transient current)

4). Irms base on Temp. rise 40℃ max.

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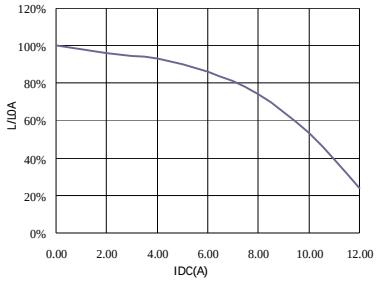
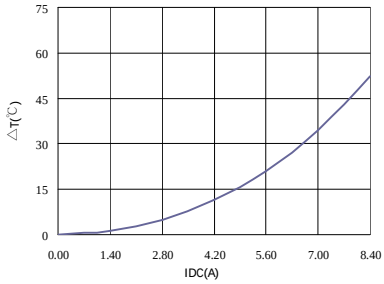
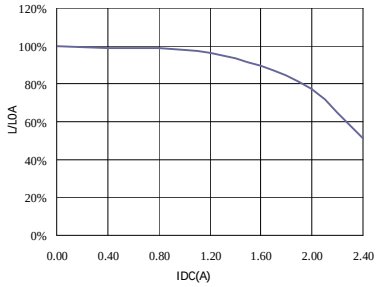
Ⅴ．Curve：

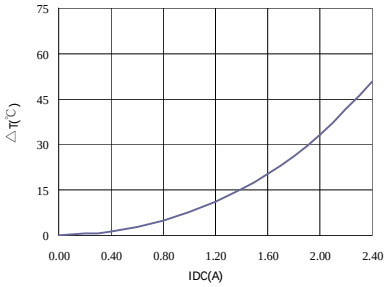
BS07041R0MS□



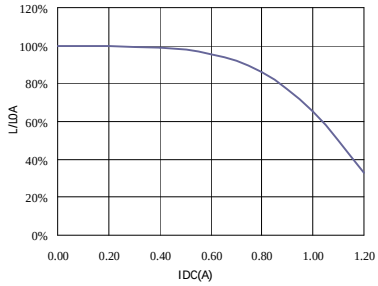


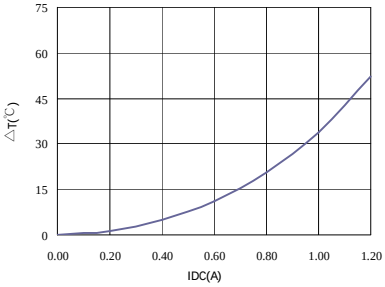
BS0704220MS□



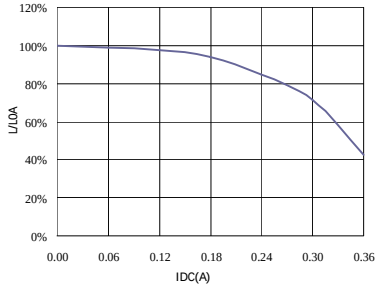


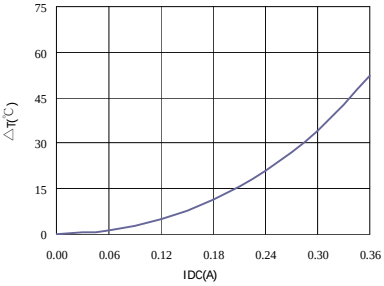
BS0704101MS□





BS0704102MS□





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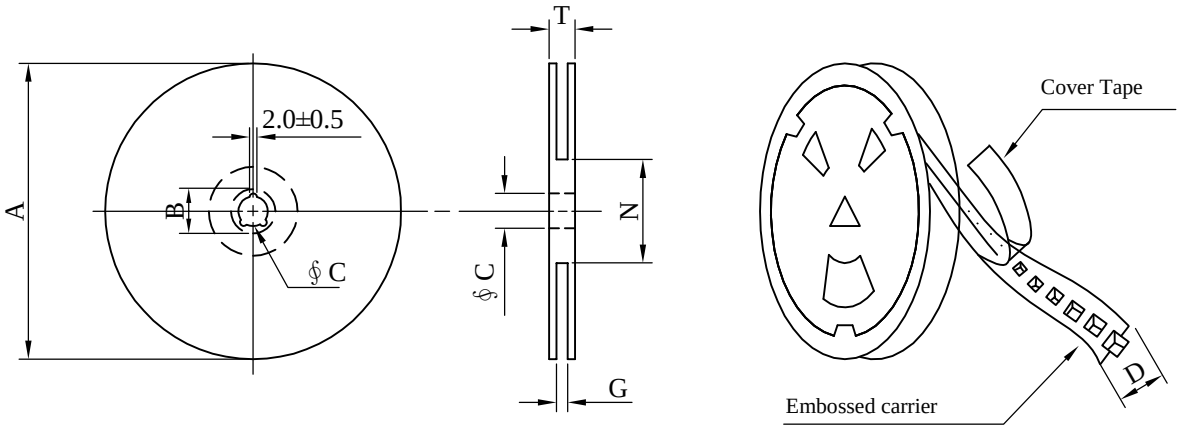
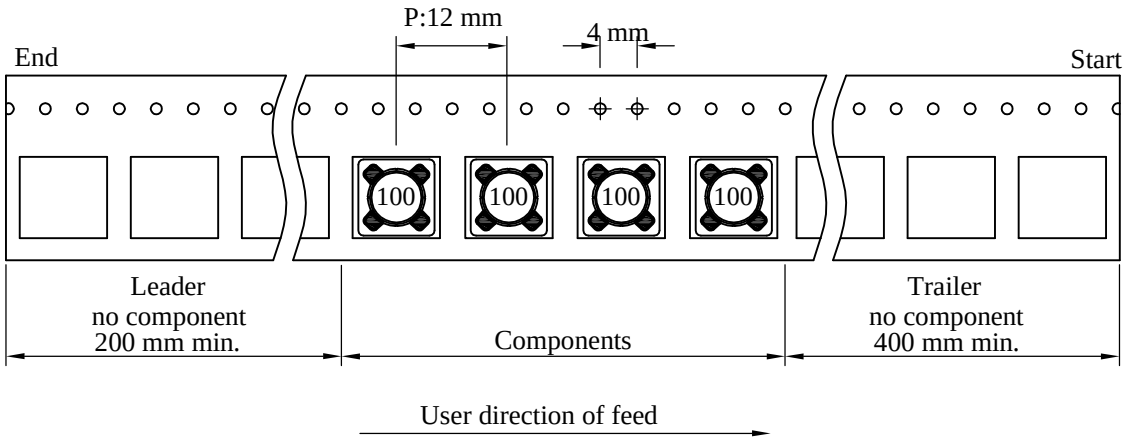
Ⅵ．Packaging information：

(1) Configuration



※Carrier tape width : D



(2) Dimensions

Unit:mm

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. (g)	Style	Q'TY (pcs)	G.W. (kg)	Size (cm)
B	1,000	1,290	13 - 16	6,000	9.0	38 x 37 x 22

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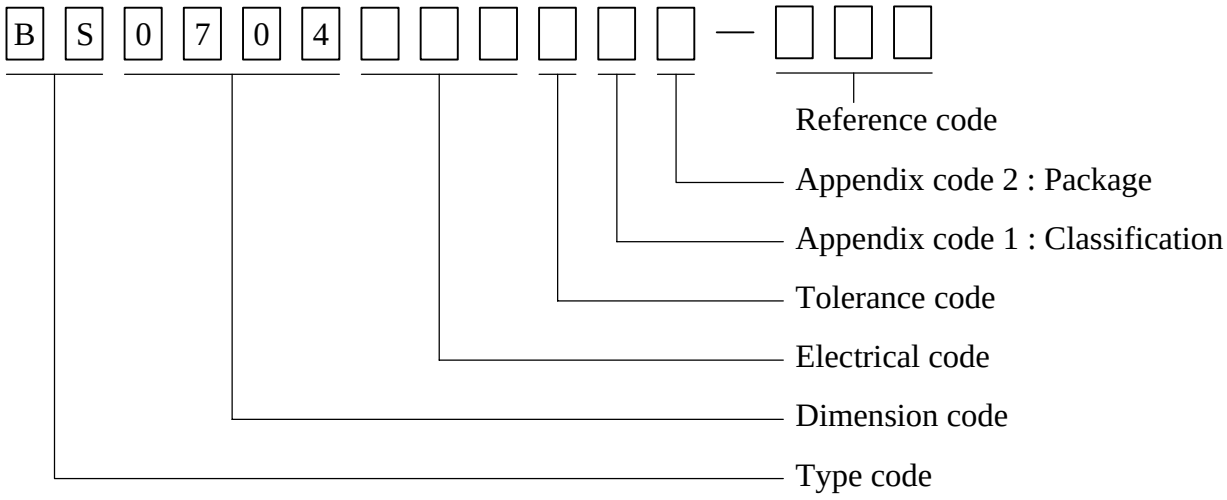
Ⅶ．Drawing number expression：



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	Antistatic	Antistatic	1,000 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 ±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 seconds. 2.Saturation current：	Inductance shall not drop more than 25% max.
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℃ max.
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 the height of 1m 2.Drop total times：6 times (Every side of sample 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.