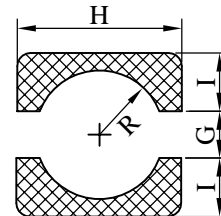
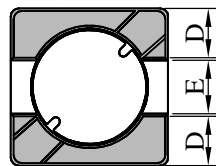
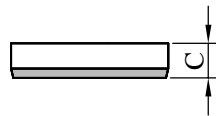
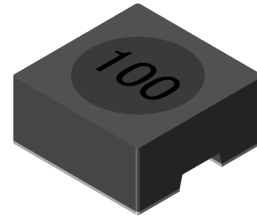
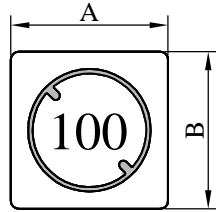


# SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.		SH4022□□□□L□-□□□		
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## I . Configuration and dimensions :



( PCB Pattern )

Unit : m/m

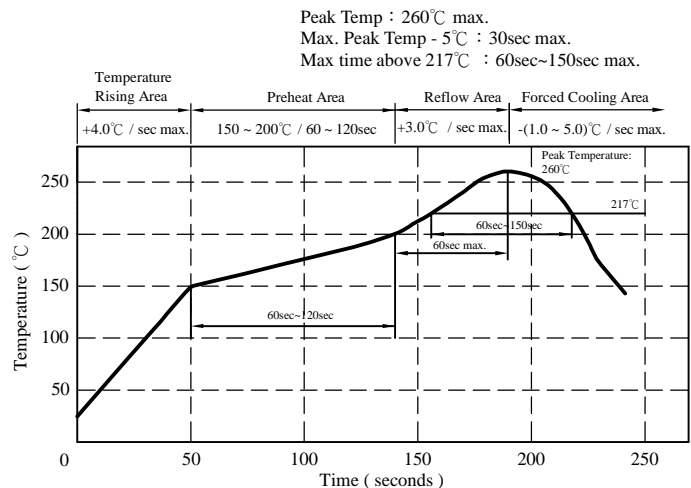
A	B	C	D	E	G	H	I	R
4.80 ±0.3	4.80 ±0.3	2.20 ±0.2	1.60 typ.	1.60 typ.	1.50 ref.	5.30 ref.	2.00 ref.	1.80 ref.

## II . Description :

- a . Ferrite drum core construction.
- b . Magnetically shielded.
- c . Enamelled copper wire : F & H class
- d . Product weight : 2.0g ( ref. )
- e . Moisture sensitivity Level 1
- f . Products comply with RoHS' requirements
- g . Halogen free available

## III . General specification :

- a . Storage temp. : -40°C ----+125°C
- b . Operating temp. : -40°C ----+125°C  
(Temp. rise included)
- c . Resistance to solder heat : 260°C.10 secs.



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# SPECIFICATION FOR APPROVAL

REF. :

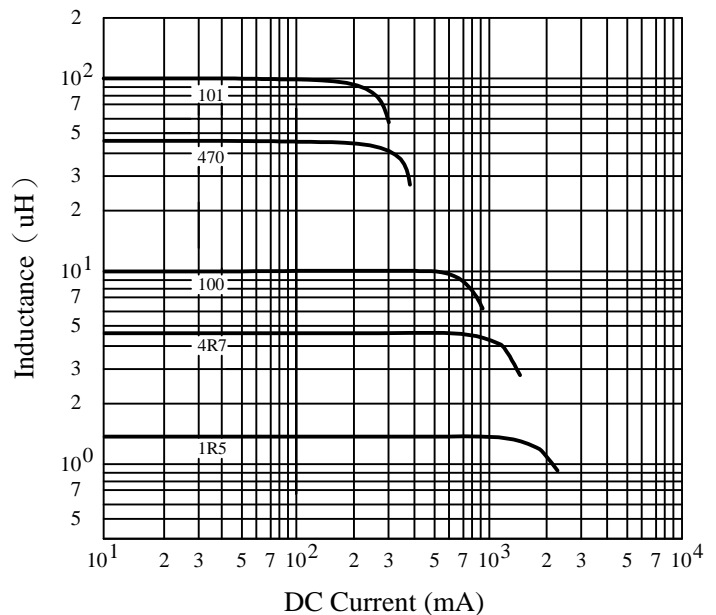
PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	SH4022□□□□L□-□□□		
		REV.	20151102-C	PAGE	2

## IV . Electrical characteristics :

DWG No.	Inductance (μH)	Q ref.	Test Freq. (MHz)	SRF (MHz) typ.	RDC (mΩ)		Irms (mA) typ.	Isat (mA) typ.
					typ.	max.		
SH40221R5YL□-□□□	1.5 ±30%	8.0	7.960	100.0	13.5	20.0	3500	1800
SH40222R2YL□-□□□	2.2 ±30%	8.0	7.960	70.0	16.5	25.0	3300	1600
SH40223R3YL□-□□□	3.3 ±30%	8.0	7.960	60.0	24.0	36.0	3000	1400
SH40224R7YL□-□□□	4.7 ±30%	8.0	7.960	50.0	37.0	55.0	2200	1100
SH40226R8YL□-□□□	6.8 ±30%	9.0	7.960	35.0	50.0	70.0	2000	950
SH4022100YL□-□□□	10.0 ±30%	9.0	2.520	30.0	65.0	85.0	1700	800
SH4022150YL□-□□□	15.0 ±30%	22.0	2.520	20.0	98.0	130.0	1300	680
SH4022220YL□-□□□	22.0 ±30%	15.0	2.520	18.0	138.0	180.0	1100	530
SH4022330YL□-□□□	33.0 ±30%	15.0	2.520	15.0	217.0	280.0	800	420
SH4022470YL□-□□□	47.0 ±30%	13.0	2.520	12.0	269.0	350.0	700	350
SH4022680YL□-□□□	68.0 ±30%	13.0	2.520	11.0	409.0	520.0	600	300
SH4022101YL□-□□□	100.0 ±30%	20.0	0.796	9.0	513.0	650.0	550	240
SH4022121YL□-□□□	120.0 ±30%	30.0	0.796	9.0	585.0	730.0	520	210
SH4022151YL□-□□□	150.0 ±30%	40.0	0.796	8.0	738.0	930.0	450	180

- 1). □ : Packaging information : □ Code
- 2). "-□□□" : Reference code
- 3). Electrical specifications at 25°C
- 4). Inductance test freq. : 100kHz / 0.1V
- 5). Irms Base on temp rise 20°C typ.
- 6). Isat Base on ΔL/L0A=35% typ.

@ Inductance VS. DC Current Curve



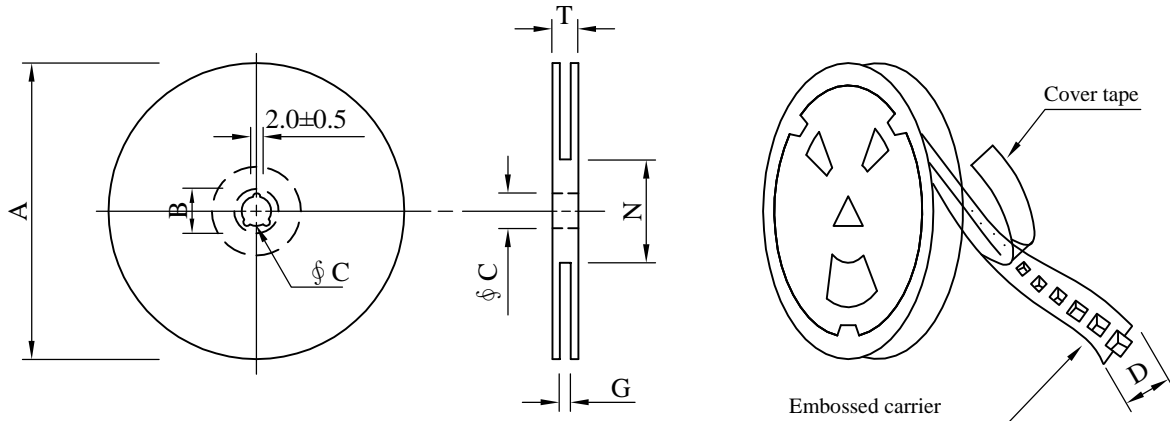
# SPECIFICATION FOR APPROVAL

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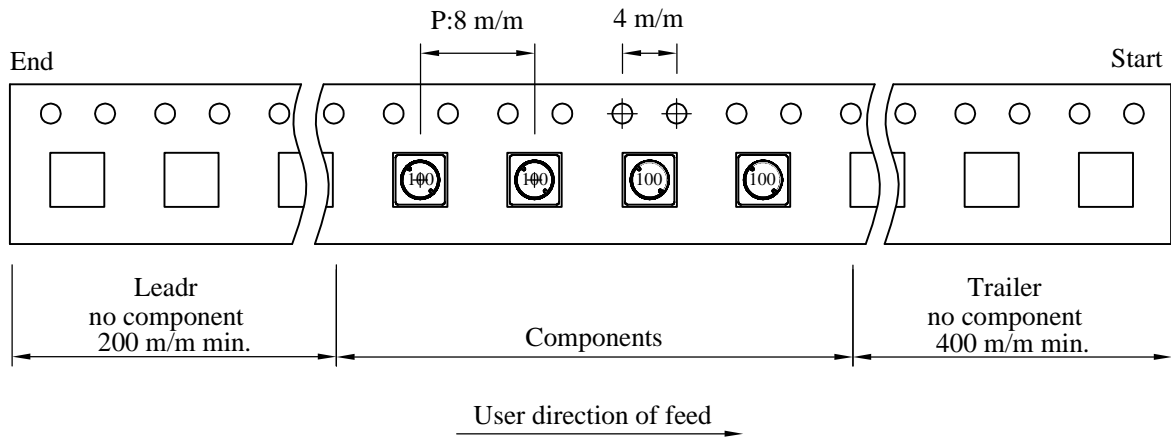
PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.		SH4022□□□□L□-□□□	
		REV.	20151102-C	PAGE	3

## V . Packaging information :

### ( 1 ) Configuration



※Carrier tape width : D



### ( 2 ) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
07 - 12	178	21±0.8	13	12	14 <sup>+0</sup>	50 <sup>-0</sup>	16.5

### ( 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	800	240	07 - 12	32,000	10.9	42 x 41 x 24

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# SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	SH4022□□□□L□-□□□		
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## VI . 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 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 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 : 260±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 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 20 ℃ 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 heigh of 1m 2.Drop total time : 6 time (Every side ofsample 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.

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