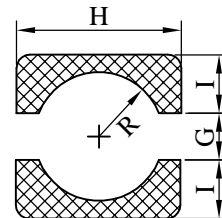
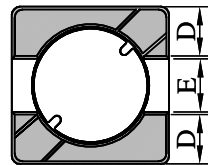
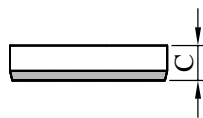
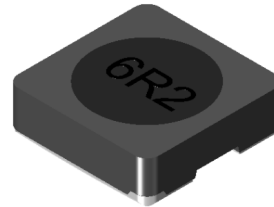
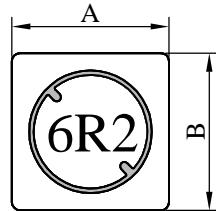


# SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	SH5018□□□□L□-□□□		
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**I . Configuration and dimensions :**



( PCB Pattern )

Unit : m/m

A	B	C	D	E	G	H	I	R
5.80 ±0.3	5.80 ±0.3	1.80 ±0.2	1.90 typ.	2.00 typ.	1.90 ref.	6.30 ref.	2.20 ref.	2.20 ref.

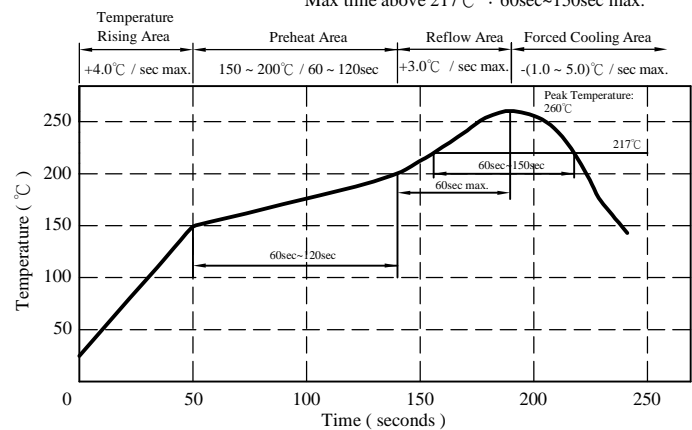
**II . Description :**

- a . Ferrite drum core construction.
- b . Magnetically shielded.
- c . Enamelled copper wire : H class
- d . Product weight : 0.25g ( 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.

Peak Temp : 260°C max.  
Max. Peak Temp - 5°C : 30sec max.  
Max time above 217°C : 60sec~150sec max.



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# SPECIFICATION FOR APPROVAL

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IV . Electrical characteristics :

DWG No.	Inductance ( μH )	SRF (MHz) typ.	RDC (Ω)		Irms (A) typ.	Isat (A) typ.
			typ.	max.		
SH50181R2YL□-□□□	1.2 ±30%	100	0.019	0.030	3.00	3.50
SH50181R8YL□-□□□	1.8 ±30%	90	0.024	0.035	2.60	3.00
SH50182R5YL□-□□□	2.5 ±30%	80	0.027	0.040	2.40	2.70
SH50183R0YL□-□□□	3.0 ±30%	70	0.033	0.045	2.20	2.40
SH50183R9YL□-□□□	3.9 ±30%	60	0.041	0.055	2.00	2.10
SH50185R0YL□-□□□	5.0 ±30%	58	0.047	0.060	1.65	1.80
SH50186R2YL□-□□□	6.2 ±30%	55	0.060	0.080	1.45	1.60
SH50187R5YL□-□□□	7.5 ±30%	50	0.068	0.090	1.35	1.50
SH50189R0YL□-□□□	9.0 ±30%	40	0.082	0.110	1.25	1.35
SH5018100YL□-□□□	10.0 ±30%	40	0.112	0.130	1.10	1.25
SH5018120YL□-□□□	12.0 ±30%	38	0.133	0.160	1.00	1.15
SH5018150YL□-□□□	15.0 ±30%	36	0.158	0.190	0.95	1.10
SH5018180YL□-□□□	18.0 ±30%	32	0.167	0.210	0.90	1.00
SH5018220YL□-□□□	22.0 ±30%	28	0.217	0.280	0.80	0.90
SH5018270YL□-□□□	27.0 ±30%	26	0.244	0.320	0.75	0.80
SH5018330YL□-□□□	33.0 ±30%	22	0.279	0.350	0.65	0.70
SH5018390YL□-□□□	39.0 ±30%	18	0.365	0.500	0.55	0.65
SH5018470YL□-□□□	47.0 ±30%	18	0.430	0.550	0.52	0.60
SH5018560YL□-□□□	56.0 ±30%	16	0.473	0.600	0.48	0.55
SH5018680YL□-□□□	68.0 ±30%	14	0.698	0.850	0.40	0.50
SH5018820YL□-□□□	82.0 ±30%	13	0.787	0.950	0.38	0.45
SH5018101YL□-□□□	100.0 ±30%	12	0.885	1.100	0.35	0.42
SH5018121YL□-□□□	120.0 ±30%	10	1.180	1.420	0.30	0.40
SH5018151YL□-□□□	150.0 ±30%	9	1.330	1.650	0.28	0.35
SH5018181YL□-□□□	180.0 ±30%	8	1.780	2.300	0.25	0.32
SH5018221YL□-□□□	220.0 ±30%	7	1.980	2.500	0.23	0.30

- 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 40°C typ.
- 6). Isat Base on ΔL/L0A=35% typ.

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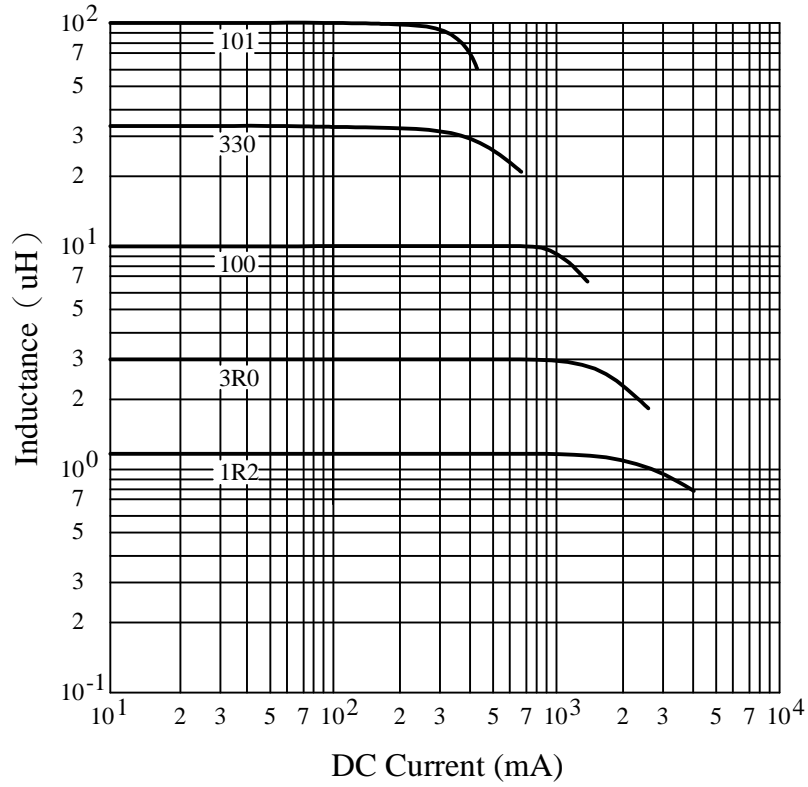


# SPECIFICATION FOR APPROVAL

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V . Curve :



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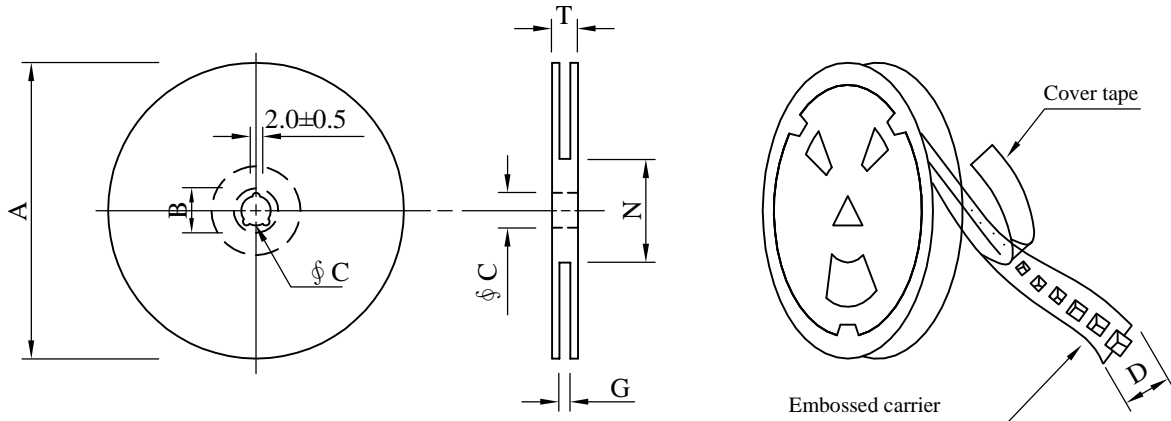
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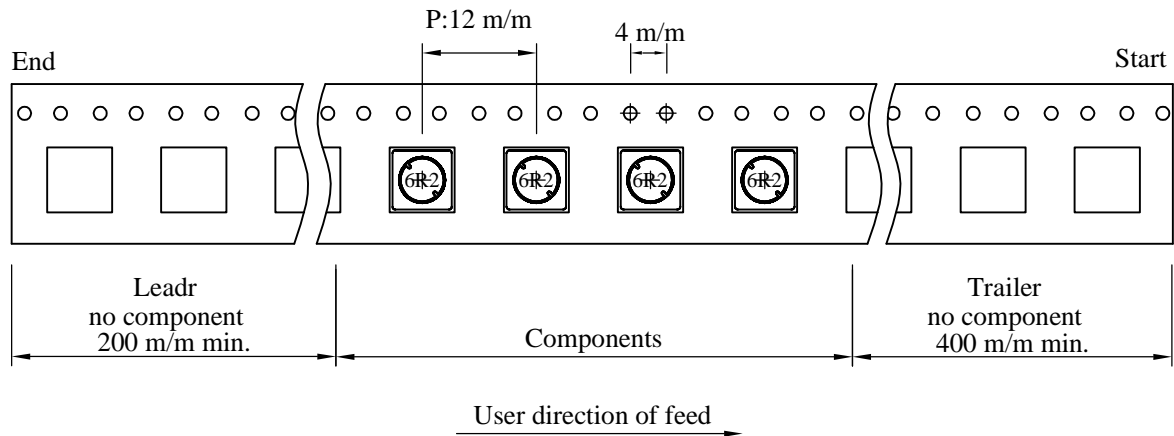
PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	SH5018□□□□L□-□□□		
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## VI . Packaging information :

### ( 1 ) Configuration



※Carrier tape width : D



### ( 2 ) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
07 - 16	178	21±0.8	13	16	18 <sup>+0</sup>	50 <sup>-0</sup>	20.5
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	500	235	07 - 16	15,000	8.5	42 x 41 x 24
C	2,000	900	13 - 16	12,000	6.7	38 x 37 x 22

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# SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	SH5018□□□□L□-□□□		
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## VII . 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 appearance. 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 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 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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