SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	SH4018□□□□L□-□□□		
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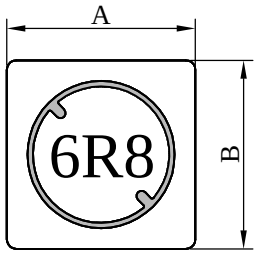
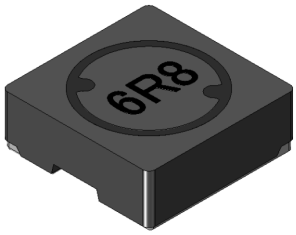
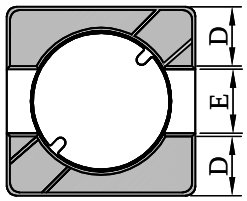
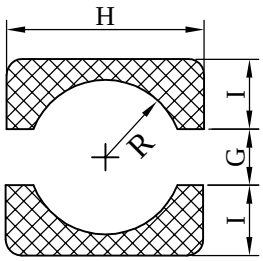
Ⅰ．Configuration and dimensions：









(PCB Pattern)

Unit：m/m

A	B	C	D	E	G	H	I	R
4.80 ±0.2	4.80 ±0.2	1.80 ±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： 0.17g（ref.）

e．Moisture sensitivity Level 1

f．Products comply with RoHS' requirements

g．Halogen free available

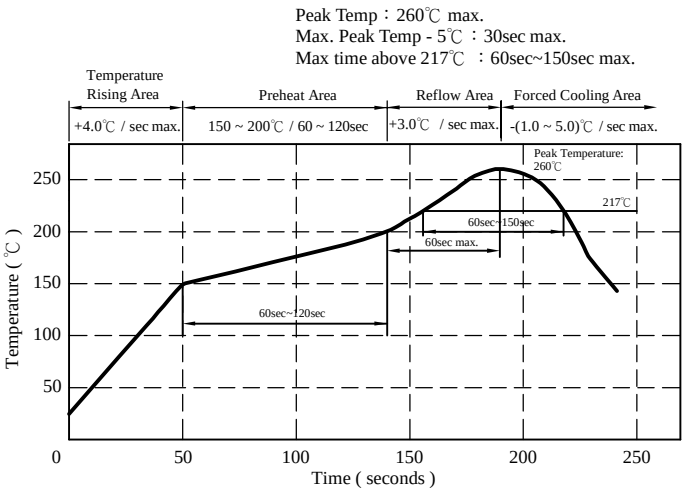
Ⅲ．General specification：

a．Storage temp.：-55℃ ----+125℃

b．Operating temp.：-40℃----+125℃

(Temp. rise included)

c．Resistance to solder heat：260℃.10 secs.



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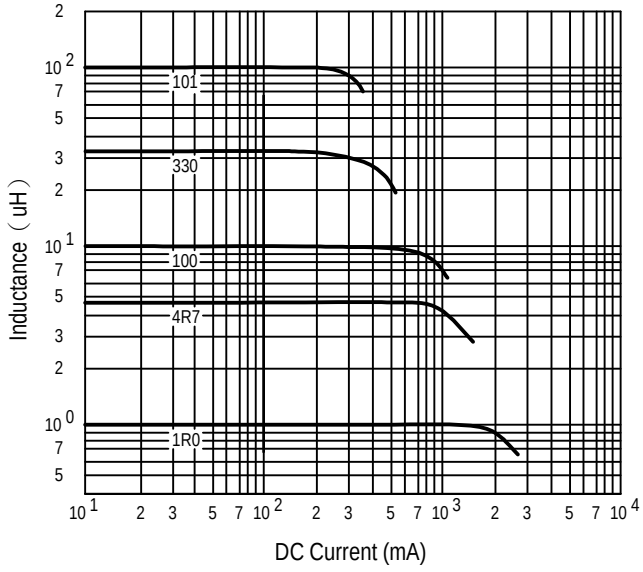
Ⅳ．Electrical characteristics：

DWG No.	Inductance (μH)	SRF (MHz) typ.	RDC (mΩ) typ.	RDC (mΩ) max.	Irms (mA) max.	Isat (mA) typ.
SH40181R0YL□-□□□	1.0 ±30%	219	25	35	2700	2600
SH40181R8YL□-□□□	1.8 ±30%	105	43	58	2350	2200
SH40182R7YL□-□□□	2.7 ±30%	78	45	60	2030	1950
SH40183R3YL□-□□□	3.3 ±30%	61	49	65	1950	1800
SH40183R9YL□-□□□	3.9 ±30%	60	55	75	1820	1650
SH40184R7YL□-□□□	4.7 ±30%	55	62	82	1720	1500
SH40185R6YL□-□□□	5.6 ±30%	57	70	90	1640	1250
SH40186R8YL□-□□□	6.8 ±30%	49	78	100	1500	1150
SH40188R2YL□-□□□	8.2 ±30%	40	102	135	1400	1100
SH4018100YL□ -□□□	10.0 ±30%	38	114	150	1300	1000
SH4018120YL□ -□□□	12.0 ±30%	32	130	170	1150	900
SH4018150YL□ -□□□	15.0 ±30%	30	174	220	1030	820
SH4018180YL□ -□□□	18.0 ±30%	30	224	280	920	750
SH4018220YL□ -□□□	22.0 ±30%	29	240	300	880	650
SH4018270YL□ -□□□	27.0 ±30%	23	286	370	770	600
SH4018330YL□ -□□□	33.0 ±30%	21	324	420	730	500
SH4018390YL□ -□□□	39.0 ±30%	19	420	540	640	480
SH4018470YL□ -□□□	47.0 ±30%	20	450	600	620	450
SH4018560YL□ -□□□	56.0 ±30%	15	643	820	520	400
SH4018680YL□ -□□□	68.0 ±30%	13	670	860	500	380
SH4018820YL□ -□□□	82.0 ±30%	13	935	1200	430	320
SH4018101YL□ -□□□	100.0 ±30%	12	1050	1350	400	300

1). □：Packaging information：□ Code
2). "-□□□"：Reference code
3). Electrical specifications at 25℃
4). Inductance test freq. : 100kHz / 0.1V
5). Irms Base on temp rise 30℃ max.
6). Isat Base on △L/L0A=35% typ.

@ Inductance VS. DC Currrent Curve



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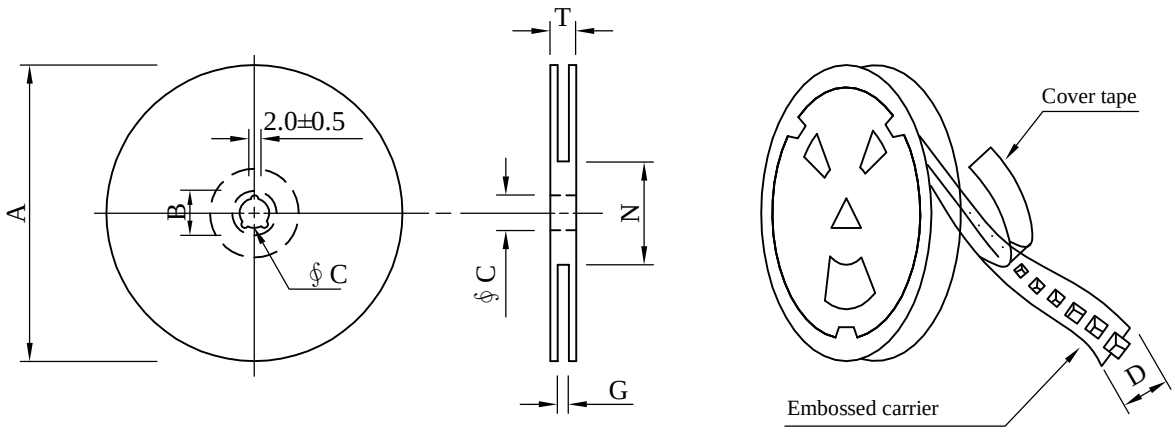
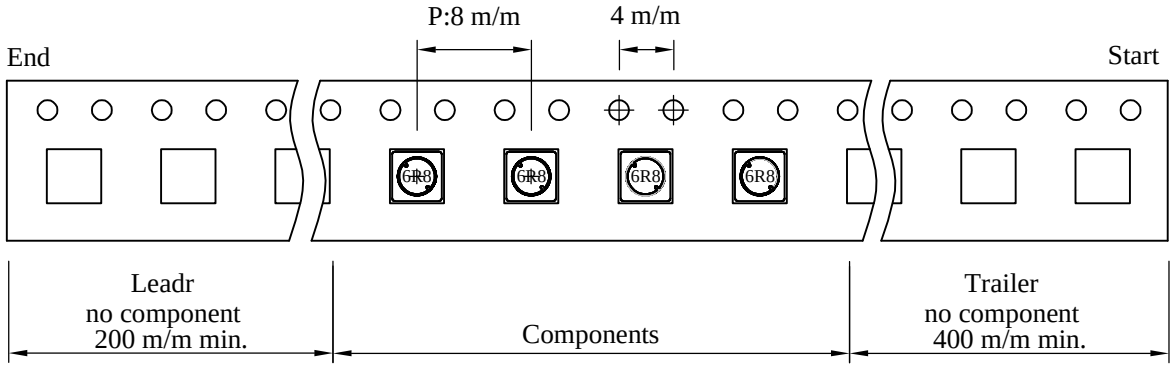
V . Packaging information：

(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^{+0}	50^{-0}	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
C	1,000	270	07 - 12	40,000	12.2	42 x 41 x 24

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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: -55℃ ~ +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：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 30℃ 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 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.