SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	SU4018□□□□L□-□□□		
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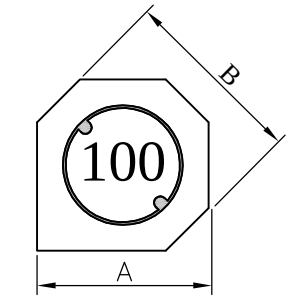
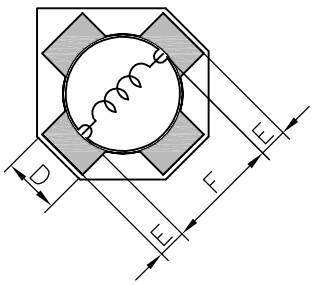
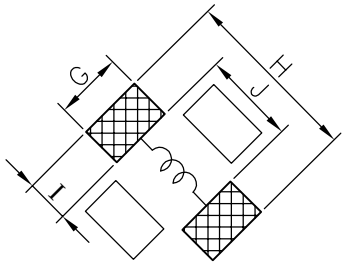
Ⅰ．Configuration and dimensions：







(PCB Pattern)

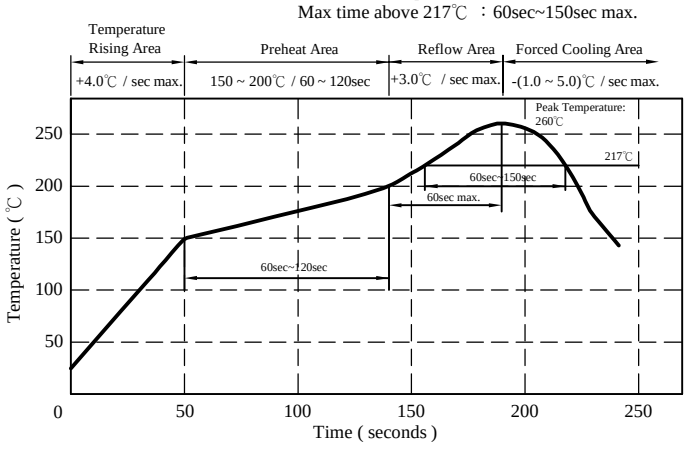
Unit：m/m

A	B	C	D	E	F	G	H	I	J
4.30 ±0.20	4.50 ±0.20	1.80 ±0.30	1.50 typ.	0.50 typ.	3.30 typ.	1.70 ref.	5.30 ref.	1.00 ref.	3.30 ref.

Ⅱ．Description：

a．Ferrite drum core construction.
b．Magnetically shielded.
c．Enamelled copper wire：H class
d．Product weight： 0.145 g（ref.）
e．Moisture sensitivity Level 1
f．Products comply with RoHS' requirements
g．Halogen free available

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



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 (μH)	Q ref.	Test Freq. (Hz)		RDC (mΩ)		SRF (MHz) typ.	Irms (mA) typ.	Isat (mA) typ.
			L	Q	typ.	max.			
SU40181R2YL□-□□□	1.20 ±30%	10	100k	7.96 M	30	40	120	2700	2200
SU40183R0YL□-□□□	3.00 ±30%	10	100k	7.96 M	45	60	80	2050	1500
SU40184R7YL□-□□□	4.70 ±30%	10	100k	7.96 M	58	78	60	1800	1300
SU40186R8YL□-□□□	6.80 ±30%	10	100k	7.96 M	80	105	45	1500	1050
SU4018100YL□-□□□	10.00 ±30%	20	100k	2.52 M	117	160	30	1200	800
SU4018150YL□-□□□	15.00 ±30%	24	100k	2.52 M	175	240	26	900	600
SU4018220YL□-□□□	22.00 ±30%	26	100k	2.52 M	255	350	20	800	500
SU4018330YL□-□□□	33.00 ±30%	22	100k	2.52 M	310	400	18	650	450
SU4018470YL□-□□□	47.00 ±30%	24	100k	2.52 M	510	660	14	550	400
SU4018680YL□-□□□	68.00 ±30%	22	100k	2.52 M	750	980	10	480	330
SU4018101YL□-□□□	100.0 ±30%	60	100k	796k	1170	1500	6	320	255

1) . □ Packaging information： □ Code

2) . ."- □□□ ":Reference code

3) . Electrical specifications at 25℃

4) . Inductance Test Freq.：100kHz / 0.1V

5) . Isat base on △L / L0A=35% typ.

6) . Irms base on Temp. rise 30℃ typ.

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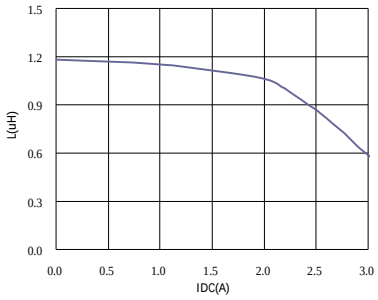
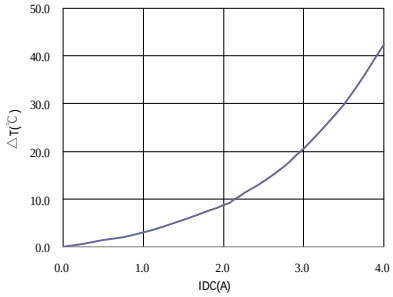
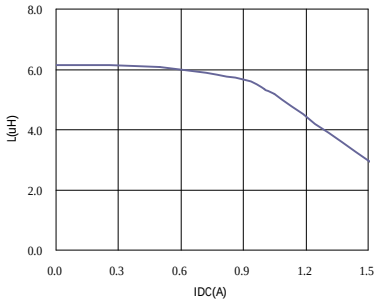
Ⅴ . Curve：

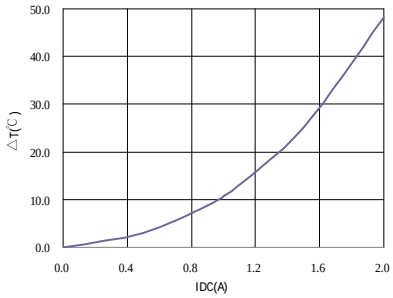
SU40181R2YL□



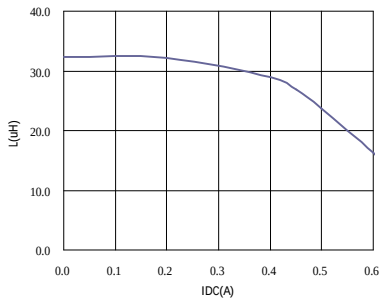


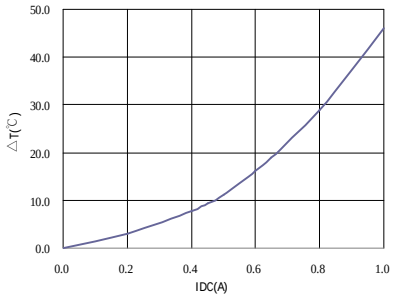
SU40186R8YL□



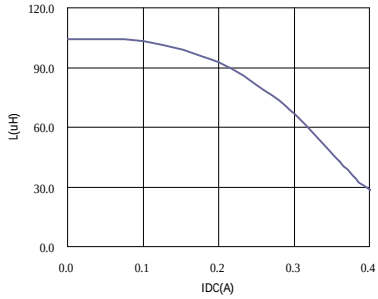


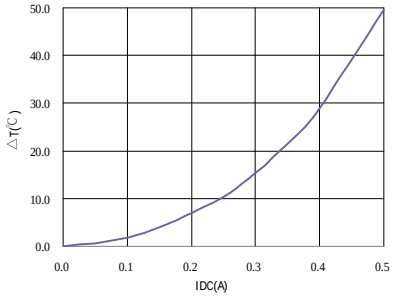
SU4018330YL□





SU4018101YL□





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ABC ELECTRONICS GROUP

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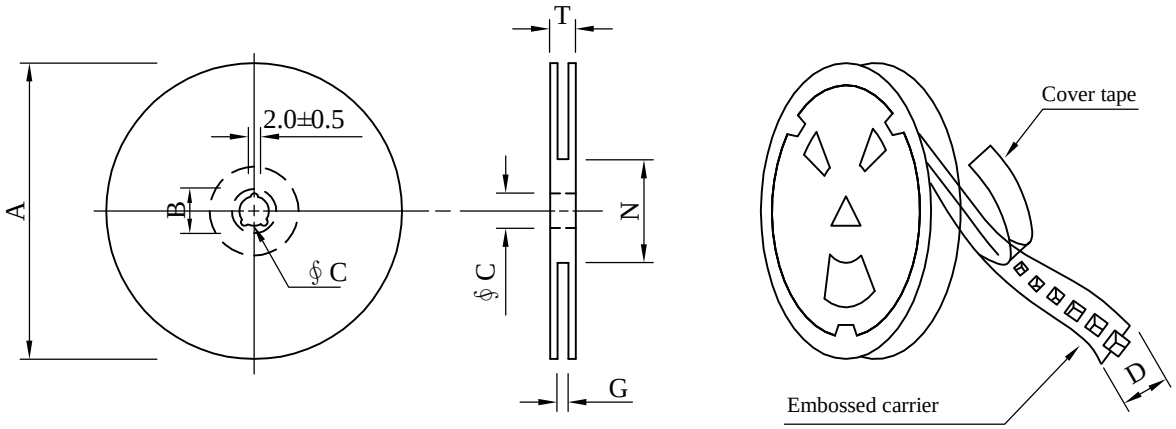
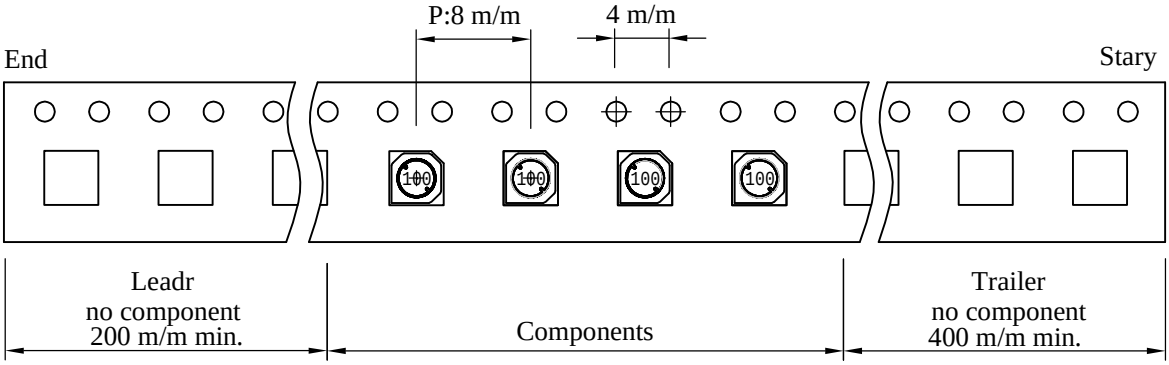
Ⅵ．Packaging information：

(1) Configuration



※Carrier tape width : D



(2) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
07 - 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	1,000	230	07 - 12	40,000	10.5	42 x 41 x 24

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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 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℃ 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 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.