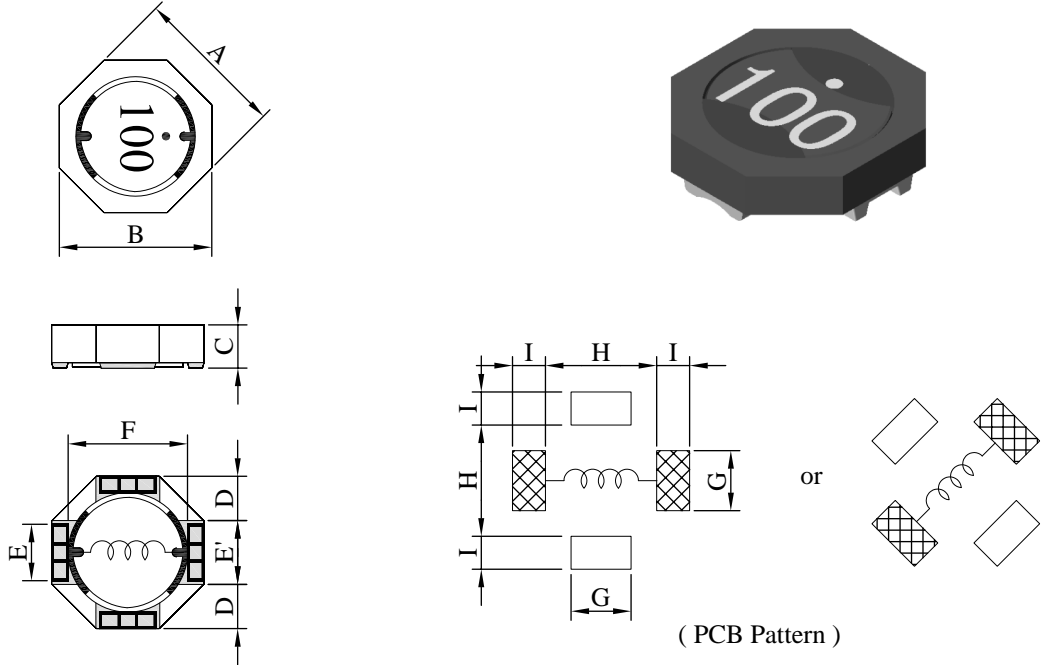


# SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.		SU6018□□□□F□-□□□			
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## I . Configuration and dimensions :



Unit : mm

A	B	C	D	E	E'	F	G	H	I
6.20 ±0.3	6.50 ±0.3	1.80 ±0.20	2.00 typ.	2.20 typ.	2.60 ±0.5	4.90 typ.	2.40 ref.	4.90 ref.	1.10 ref.

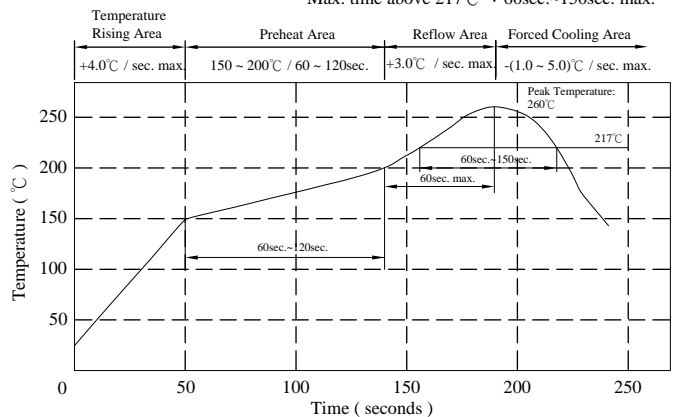
## II . Description :

- a . Ferrite drum core construction
- b . Magnetically shielded
- c . Enamelled copper wire : F · H class
- d . Product weight : 0.20 g ( ref. )
- e . Moisture sensitivity Level 1
- f . Products comply with RoHS' requirements
- g . Halogen free

## 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 sec.

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 ( $\mu$ H)	Q ref.	Test Freq. ( Hz )		RDC ( m $\Omega$ )		SRF ( MHz )	Irms ( mA )	Isat ( mA )
			L	Q	typ.	max.	typ.	typ.	typ.
SU60181R2YF□-□□□	1.2 $\pm$ 30%	8	100k	7.96M	19	25	130	3600	2800
SU60181R8YF□-□□□	1.8 $\pm$ 30%	8	100k	7.96M	22	28	90	3000	2300
SU60183R3YF□-□□□	3.3 $\pm$ 30%	8	100k	7.96M	28	36	60	2500	1700
SU60184R7YF□-□□□	4.7 $\pm$ 30%	8	100k	7.96M	32	42	50	2200	1400
SU60186R8YF□-□□□	6.8 $\pm$ 30%	8	100k	7.96M	46	60	40	1900	1200
SU6018100YF□-□□□	10.0 $\pm$ 30%	12	100k	2.52M	68	88	30	1700	1000
SU6018150YF□-□□□	15.0 $\pm$ 30%	12	100k	2.52M	100	130	24	1500	800
SU6018220YF□-□□□	22.0 $\pm$ 30%	14	100k	2.52M	145	190	18	1200	650
SU6018330YF□-□□□	33.0 $\pm$ 30%	10	100k	2.52M	195	255	16	1000	580
SU6018470YF□-□□□	47.0 $\pm$ 30%	12	100k	2.52M	315	410	14	800	460
SU6018680YF□-□□□	68.0 $\pm$ 30%	12	100k	2.52M	455	600	12	620	360
SU6018101YF□-□□□	100.0 $\pm$ 30%	20	100k	796k	550	715	9	550	340

- 1) . Electrical specifications at 25°C
- 2) . Inductance Test Freq. : 100kHz / 0.1V
- 3) . Isat base on  $\Delta$ L / L0A=35% typ.
- 4) . Irms base on Temp. rise 30°C typ.

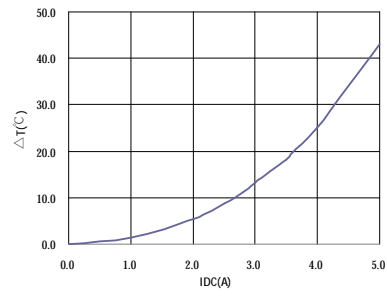
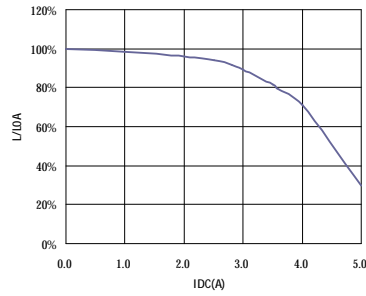
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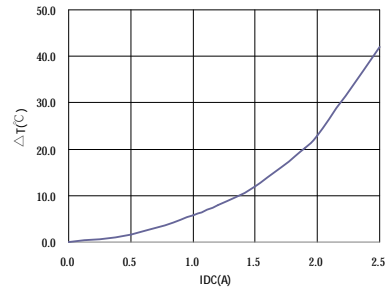
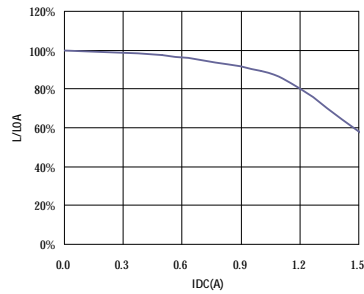
PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	SU6018□□□□F□-□□□		
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V . Curve :

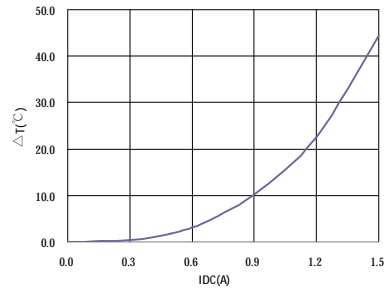
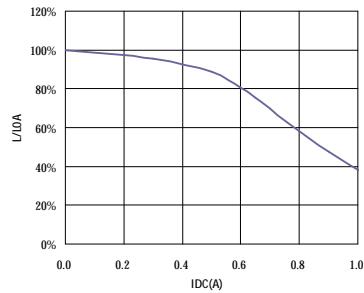
SU60181R2YF□



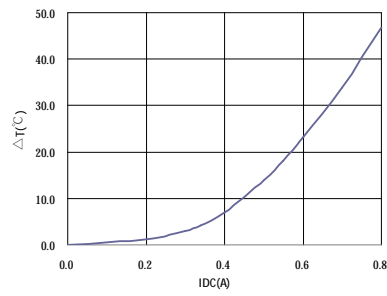
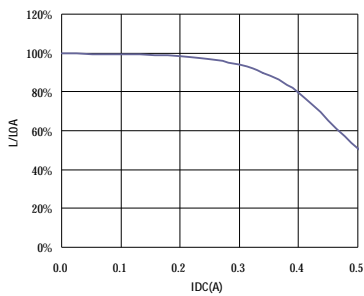
SU60186R8YF□



SU6018220YF□



SU6018101YF□



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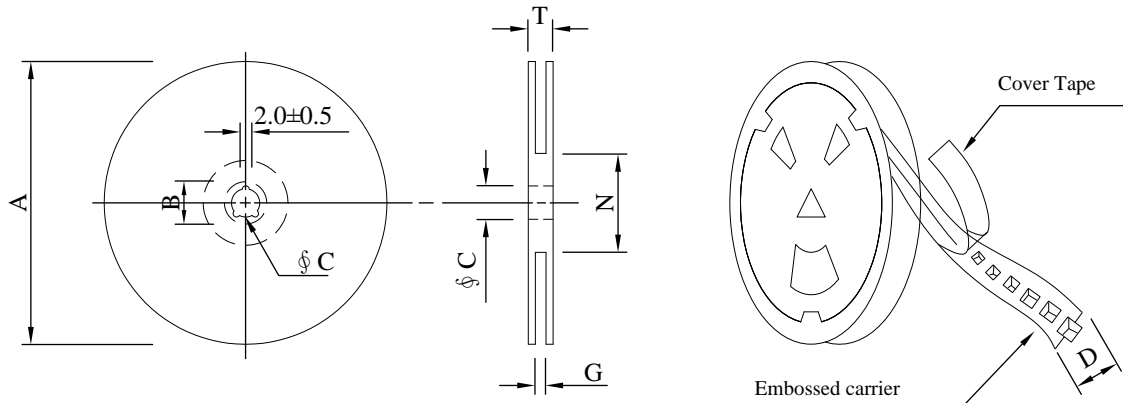
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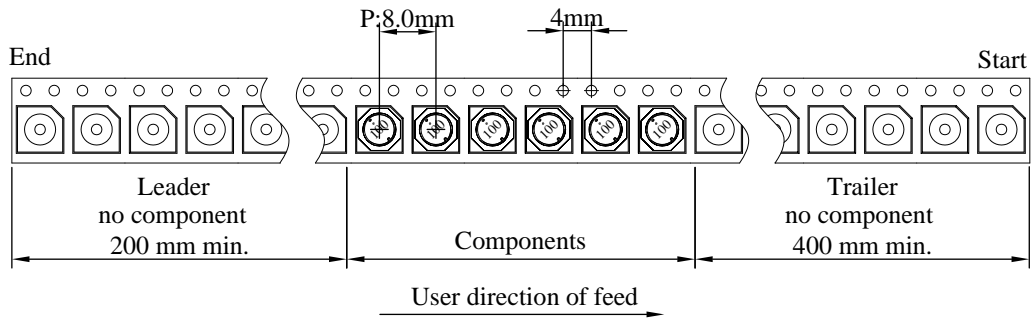
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**VI . Packaging information :**

( 1 ) Configuration



※Carrier tape width : D



( 2 ) Dimensions

Unit:mm

Style	A	B	C	D	G	N	T
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. (g)	Style	Q'TY (pcs)	G.W. (kg)	Size (cm)
B	800	270	07 - 12	32,000	12.4	42 x 41 x 24

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# SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	SU6018□□□□F□-□□□		
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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 cycles 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 apperance. 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 Seconds. 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 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 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 a height of 1m 2.Drop total time : 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.

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ABC-ATEC ELECTRONICS GROUP