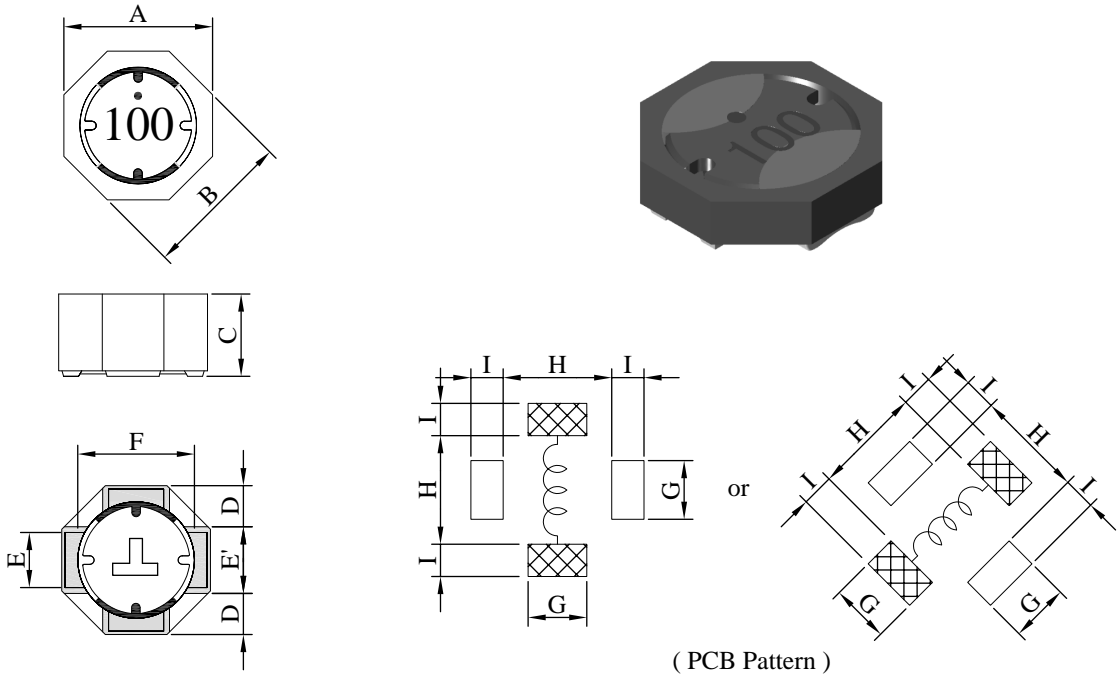


SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.		SU1030□□□□F□-□□□	
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I . Configuration and dimensions :



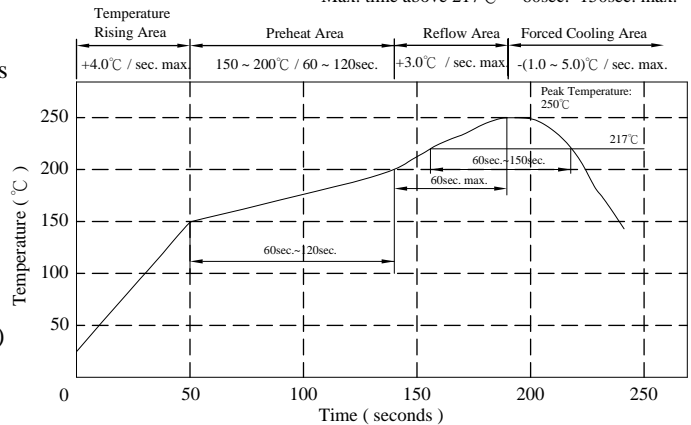
Unit : mm

A	B	C	D	E	E'	F	G	H	I
10.00 ±0.3	10.00 ±0.3	2.80 ±0.3	2.75 typ.	4.00 typ.	4.50 ±0.5	8.20 typ.	4.20 ref.	8.20 ref.	1.40 ref.

II . Description :

- a . Ferrite drum core construction
- b . Magnetically shielded
- c . Enamelled copper wire : F · H class
- d . Product weight : 0.90 g (ref.)
- e . Moisture sensitivity Level 1
- f . Products comply with RoHS' requirements
- g . Halogen free

Peak temp. : 250°C max.
Max. peak temp. - 5°C : 30sec. max.
Max. time above 217°C : 60sec.~150sec. max.



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.

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IV . Electrical characteristics :

DWG. No.	Inductance (μ H)	Q ref.	SRF (MHz) typ.	RDC (m Ω)		I _{rms} (A) typ.	I _{sat} (A) typ.
				typ.	max.		
SU10303R5YF□-□□□	3.5 \pm 30%	16	45	20.5	27.0	5.00	5.20
SU10304R7YF□-□□□	4.7 \pm 30%	14	36	25.0	32.5	4.20	4.40
SU10306R2YF□-□□□	6.2 \pm 30%	12	30	32.0	42.0	3.80	3.90
SU1030100YF□-□□□	10.0 \pm 30%	16	26	44.0	58.0	3.00	3.10
SU1030150YF□-□□□	15.0 \pm 30%	16	22	73.0	95.0	2.60	2.55
SU1030220YF□-□□□	22.0 \pm 30%	16	18	110.0	145.0	2.00	2.10
SU1030330YF□-□□□	33.0 \pm 30%	12	14	150.0	195.0	1.70	1.74
SU1030470YF□-□□□	47.0 \pm 30%	14	12	210.0	270.0	1.40	1.35
SU1030680YF□-□□□	68.0 \pm 30%	14	10	285.0	370.0	1.20	1.22
SU1030101YF□-□□□	100.0 \pm 30%	14	8.5	395.0	520.0	1.10	1.02
SU1030151YF□-□□□	150.0 \pm 30%	12	5.5	640.0	840.0	0.85	0.84

- 1). Electrical specifications at 25°C
- 2). Inductance Test Freq. : 100kHz / 0.1V
- 3).Q Test Freq. : 3R5~6R2--7.96MHz , 100~680--2.52MHz , 101~151--0.796MHz
- 4). Isat base on Δ L / L0A=35% typ.
- 5). I_{rms} base on Temp. rise 40°C typ.

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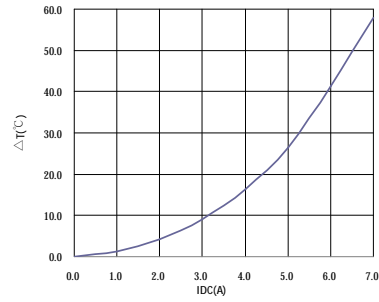
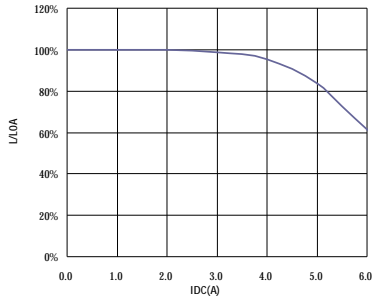
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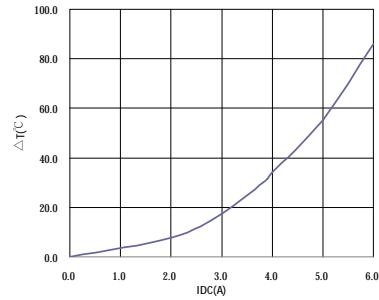
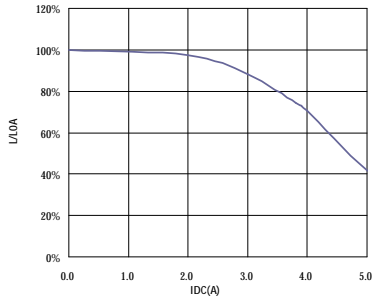
PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	SU1030□□□□F□-□□□		
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V . Curve :

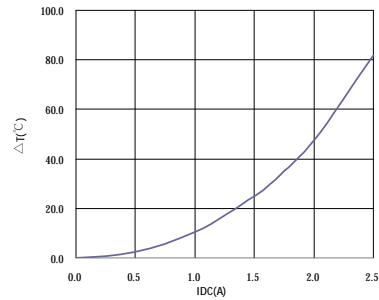
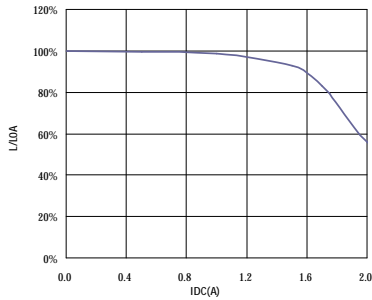
SU10303R5YF□



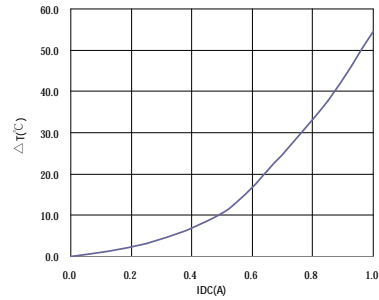
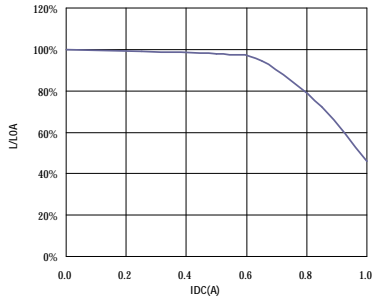
SU10306R2YF□



SU1030330YF□



SU1030151YF□



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ABC-ATEC ELECTRONICS GROUP

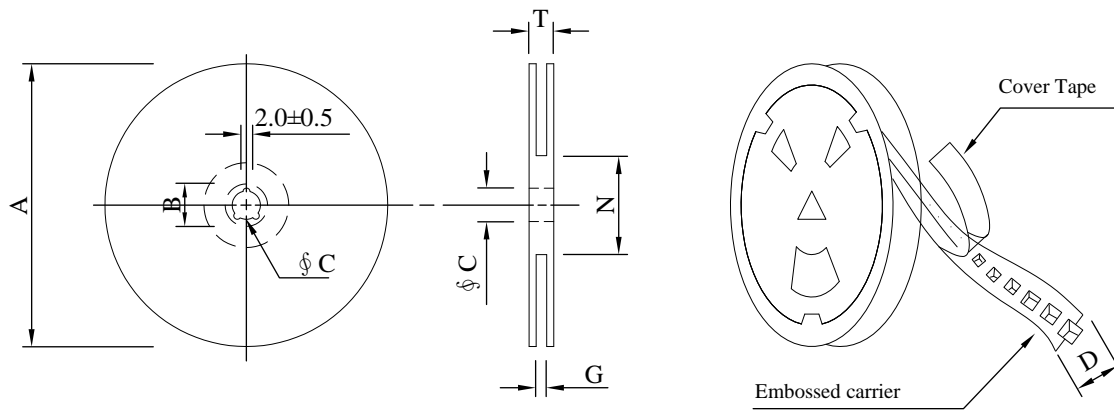
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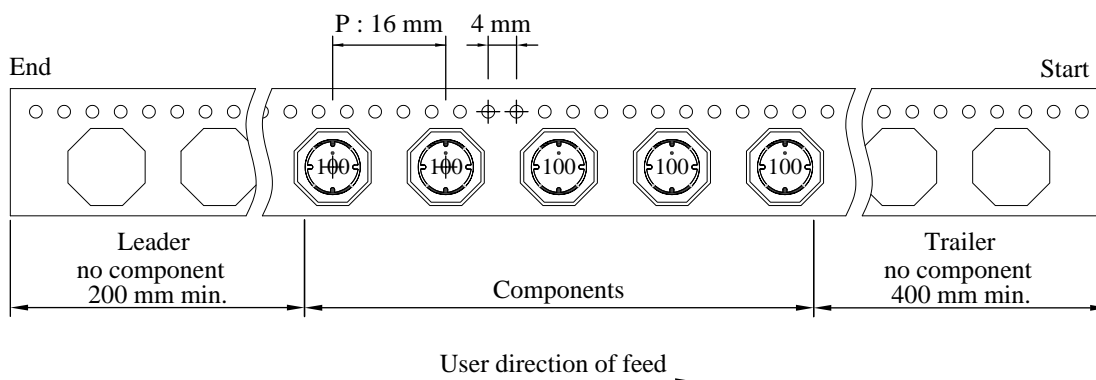
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VI . Packaging information :

(1) Configuration



※Carrier tape width : D



(2) Dimensions

Unit:mm

Style	A	B	C	D	G	N	T
13 - 24	330	21±0.8	13±0.5	24	26 ⁺⁰	60 ⁻⁰	30.4

(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	1,200	1600	13 - 24	4,800	7.7	38 x 37 x 22

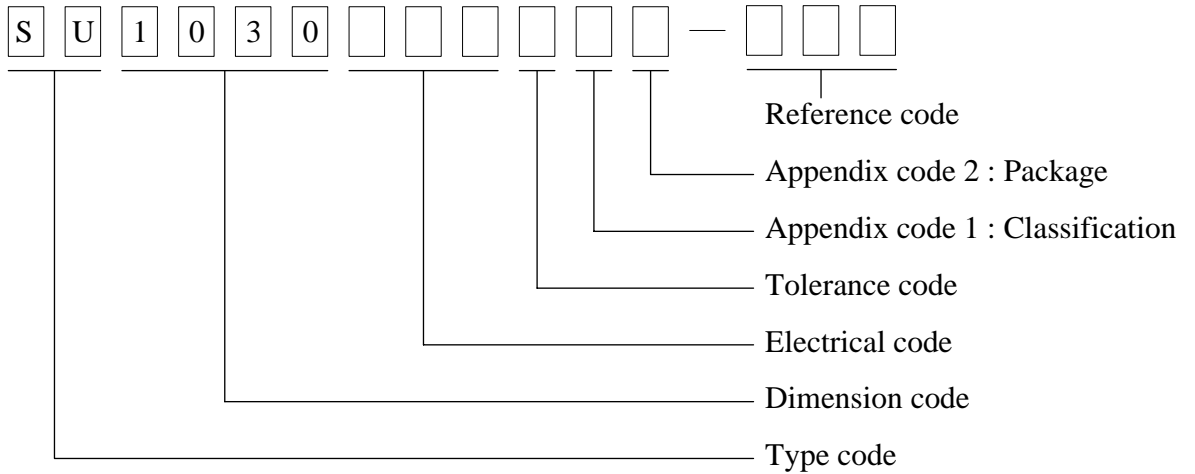
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VII . Drawing number expression :



Appendix code 1 : Product Classification

Appendix code 2 : Package Information

Code	Inner package	Cover tape	Carrier tape	Bag	Package Q'TY	Remark
B	T/R (Reel package)	UCT	Antistatic	Antistatic	1,200 pcs	

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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 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 : 250±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 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 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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