承　認　書

SPECIFICATION FOR APPROVAL

CUSTOMER: _____

DESCRIPTION: SMD INDUCTOR

FA PART NO: FALQH-2220-330M

CUSTOMERMODELNO: _____

DRAWING		
MADE	CHECKED	APPROVED
黄锈媛	张有涛	陈启善
DATE: 2017年6月13日		

CUSTOMER APPROVE

天长市富安电子有限公司

TIANCHANG FUAN ELECTRONICS CO., LTD

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天长市富安电子有限公司
TIANCHANG FUAN ELECTRONICS CO., LTD

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变更履历

日期	版本	修订内容	制定	核准
2017-6-13	A1.0	新版发行	黄锈媛	陈启善

天长市富安电子有限公司
TIANCHANG FUAN ELECTRONICS CO., LTD

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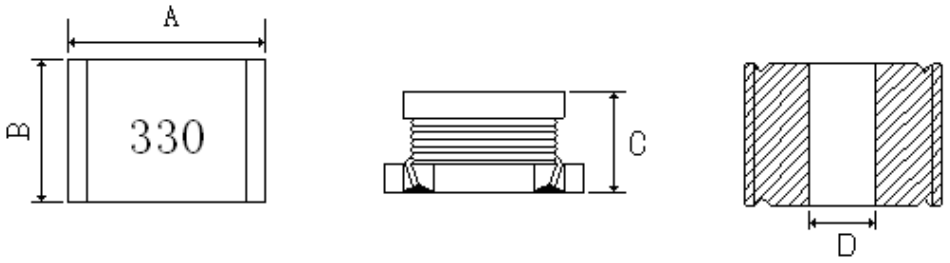
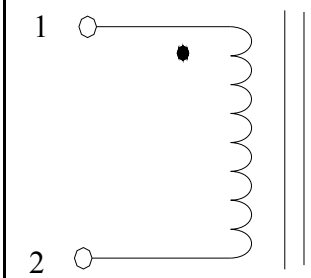
1. DRAWING



SCHEMATICS



CODE	A	B	C	D	
DIMENSION	5.7±0.3	5.0±0.3	4.7±0.3	2.1Typ.	

2. ELECTRICAL CHARACTERISTICS @25℃

ITEM	SPEC. RANGE	TEST CONDITION	TEST INSTRUMENTS
L_0(μH)	33*(1±20%)	1KHz/0.25V	TH2828
Irms(A)	2 MAX		VR116+VR7210
Isat(A)	1.8		
DCR(Ω)	0.4 MAX		502BC
IR(COIL-CORE)	100MOHM MIN	DC 100V	JIA KAI 7110
HIPOT (COIL-CORE)	1mA MAX	AC 100V(3 SEC.)	JIA KAI 7110

3. GENERAL SPECIFICATION

a. Rating DC current: Temperature rise(△T) is 40℃ approximately at Irms.
b. Saturation DC current: Inductance drop approximately 30% of L_0 at Isat.
c. Storage temp.: -40℃ ~ 85℃
d. Storage R.H.: 30% ~ 70%
e. Operating temp.: -25℃~ +125℃
f. Resistance to solder heat: 260℃/10 secs.

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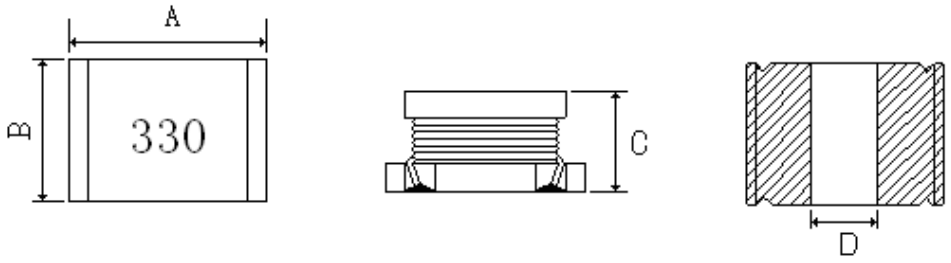
4.TEST DATA FOR PREPRODUCTION SAMPLE

ELECTRICAL CHARACTERISTIC					DIMENSIONS(mm)					
TEST ITEM	L_0	Temperature rise	L_{Isat}	DCR	A	B	C	D		
	(μH)	(℃)	(μH)	(Ω)	(mm)	(mm)	(mm)	(mm)		
CON.	1KHz/0.25V	Irms 2A	Isat 1.8A	At 25℃	5.7±0.3	5.0±0.3	4.7±0.3	2.1Typ.		
SPEC.	33*(1±20%)	△T 40℃	Drop 30 %	0.4 MAX						
1	30.56	14.0	29.95	0.21	5.75	5.12	4.78	2.28		
2	30.27	14.0	29.66	0.22	5.73	5.10	4.82	2.25		
3	31.24	15.0	30.62	0.23	5.76	5.09	4.81	2.23		
4	30.93	13.0	30.31	0.21	5.75	5.14	4.80	2.31		
5	30.68	14.0	30.07	0.21	5.75	5.12	4.77	2.29		
6	30.52	15.0	29.91	0.23	5.72	5.11	4.79	2.21		
7	31.17	14.0	30.55	0.22	5.74	5.13	4.78	2.20		
8	31.30	13.0	30.67	0.21	5.77	5.13	4.81	2.28		
9	30.49	13.0	29.88	0.22	5.76	5.12	4.84	2.28		
10	31.15	15.0	30.53	0.22	5.73	5.09	4.76	2.33		
X	30.83	14.00	30.21	0.22	5.75	5.12	4.80	2.27		
R	1.03	2.00	1.01	0.02	0.05	0.05	0.08	0.13		

图示：



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5. MATERIAL LIST

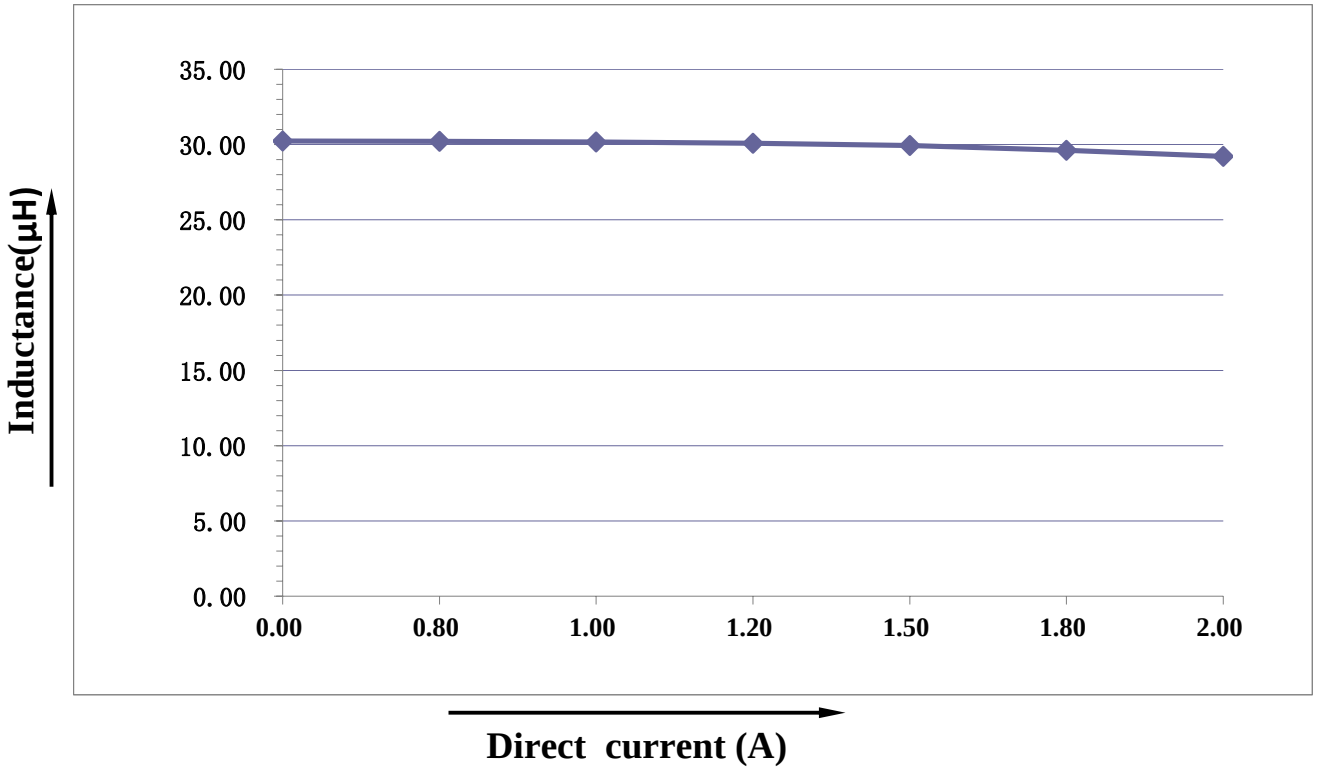
NO	ITEM	DESCRIPTION	SUPPLIER	REMARK
1	CORE	SDR 5.7-4.7-2.95-2.5S	CHUANGYI	
2	WIRE	G1 Φ0.2mm P180	ELEKTRISOLA	

REMARK:

6.1 ELECTRICAL CHARACTERISTIC CURVE----L vs Isat

Inductances (μH) VS Direct current (A)

CURRENT(A)	0.00	0.80	1.00	1.20	1.50	1.80	2.00	0.00	0.00	0.00	0.00		
L_I (μH)	30.24	30.22	30.18	30.09	29.94	29.61	29.22	0.00	0.00	0.00	0.00		
Drop%	0.0%	0.1%	0.2%	0.5%	1.0%	2.1%	3.4%	0.0%	0.0%	0.0%	0.0%		



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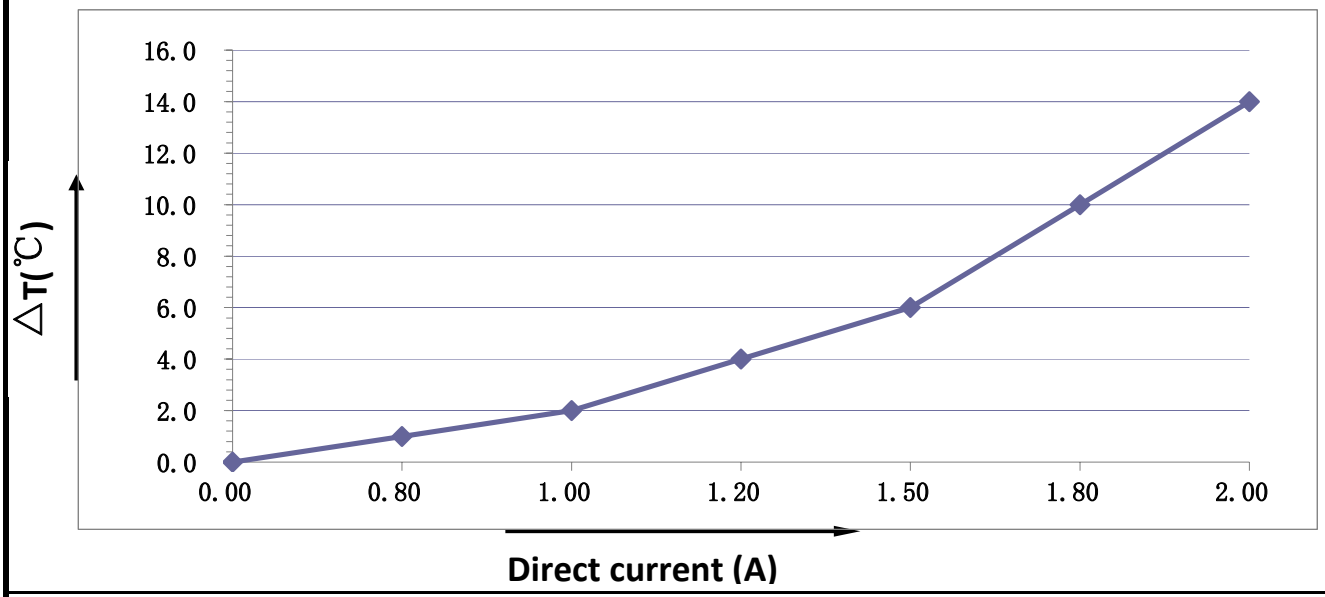
6.2 ELECTRICAL CHARACTERISTIC CURVE----△T vs IDC

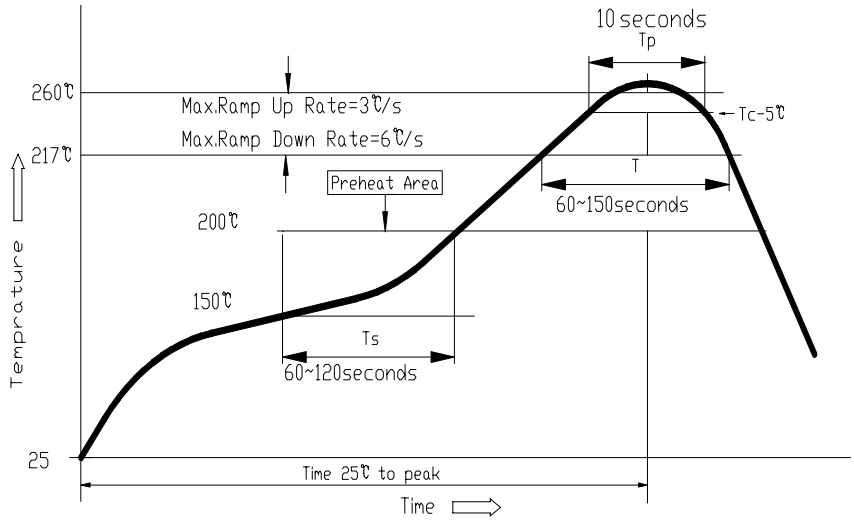
Temperature Rise(℃)vs Direct Current(A)

CURRENT(A)	0.00	0.80	1.00	1.20	1.50	1.80	2.00	0.00	0.00	0.00	0.00	0.00	0.00
△T(℃)	0.0	1.0	2.0	4.0	6.0	10.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0



7. Recommended Soldering Conditions

Reflow Solderings



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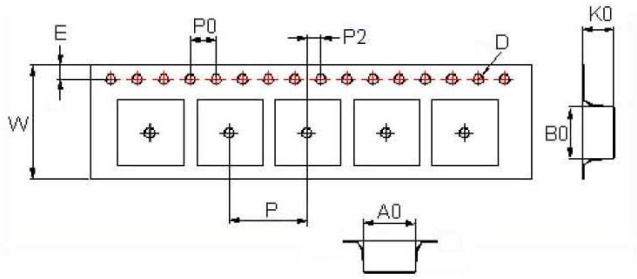
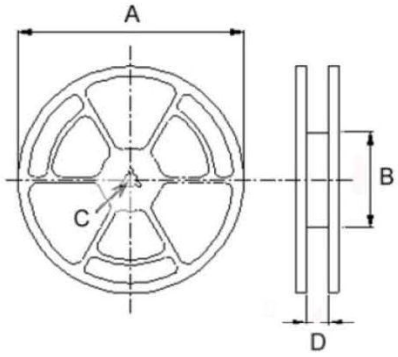
8. PACKAGING(unit: mm)

Packaging Specifications

Tape Dimensions



Reel Dimensions



Dimensions in mm

Series	Tape Dimensions									Reel Dimensions				Quantity
	A0	B0	K0	D	E	W	P	P0	P2	A	B	C	D	PCS/REEL
DSE575047	5.4	6.0	5.5	1.5	1.75	16	12	12	2	330	100	17	1.5	1000

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9.1 RELIABILITY TEST

TEST ITEM	SPECIFICATION	TEST CONDITION
Withstanding voltage test	After test, inductors shall have no evidence of electrical and mechanical damage.	AC voltage of 100v and AC current of 1mA applied between inductor's terminal and core for 3 secs.
Resistance to soldering heat	1. Inductor shall have no evidence of electrical and mechanical damage. 2. Inductance shall not change more than ±5%. 3. Q shall not change more than ± 20%.	a. Temp: 260±5°c b. Time: 10±1.0 secs
Solderability test	The terminal shall be at least 95% covered with solder.	After fluxing, the terminal shall be dipped in a melted solder bath at 245±5℃ for 4±1.0 secs.
High temperature & high humidity test	The anti-erosion quality of the surface and the specimen's inductance shall not change from the initial value within ±10%	a. Test condition 1)Temp.:85℃, R.H.:85% 2)Time:144±2hours b. Measurement methods: The experimental component should be put at normal condition for 2 hours then to measure again after test
Salt spray test		a. Test condition 1)Temp.:35±2℃ 2)Time:48±2hours 3)Salt solution PH:6.5~7.2 b. Measurement methods: The experimental component should be put at normal condition for 2 hours then to measure again after test
Vibration test	1. Inductance shall be within ± 10% of the initial value. 2. Appearance:no damage	a. Frequency: 10 to 55HZ b. Amplitude: 1.5mm c. Direction and time: X, Y and Z directions for 2 hours each.

We have suggested the storage period of lead-free product should not over 6 months.

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9.2 RELIABILITY TEST

TEST ITEM	SPECIFICATION	TEST CONDITION
Free fall test	No mechanical damage shall be noticed.	Drop 5 times on a concrete floor from lm the height
Temperature Cycling test	1. Inductance shall be within ± 10% of the initial value 2. Appearance:No damage	a. Test condition 1)Temp.:-55℃,time:30±3min 2)Temp.:+125℃,time: 30±3min 3)Cycles times:12 cycles b. Measurement methods: The experimental component should be put at normal condition for 2 hours then to measure again after test
High Temperature resistance test		a. Test condition 1)Applied rated current 2)Temp.:85℃±2℃ 3)Test time:1000+24/-0H b. Measurement methods: The experimental component should be put at normal condition for 24 hours then to measure again after test.
Low temperature resistance test		a. Test condition 1)Temp.:-55℃±2℃ 2)Test time:1000+24/-0H b. Measurement methods: The experimental component should be put at normal condition for 24 hours then to measure again after test.

We have suggested the storage period of lead-free product should not over 6 months.

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