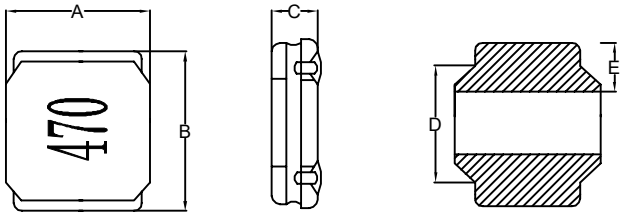
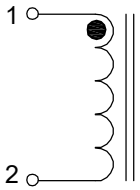
REV	ECN.NO	DESCRIPTION	APPD	DATE

1. Outline Dimensions(Unit:mm)

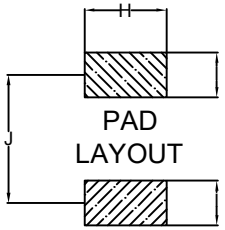


DIM	MILLIMETERS (Units:mm)
A	4.0±0.2
B	4.0±0.2
C	1.8±0.3
D	2.5±0.2
E	1.1±0.2

2. Electronical Schematic

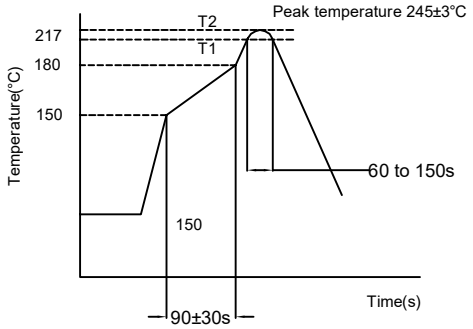


3. Suggested Pad layout



DIM	MILLIMETERS (Units:mm)
H	3.70 Typ
I	1.55 Typ
J	2.80 Typ

4.Recommended solderability temperature profile



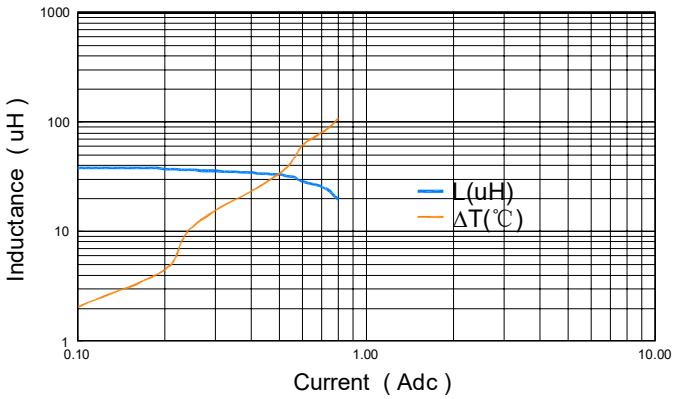
Use rosin-based flux
Don`t use high acidic flux with halide content exceeding 0.2(wt)%(chlorine conversion value).
Use lead-free solder, use Sn-3.0Ag-0.5Cu solder
Standard thickness of solder paste:0.12~0.15mm.

5. Electrical Characteristics @25℃

Inductance @100KHz,0.1V	DCR(±20%)	I rms MAX	I sat Typ
47uH±20%	0.65Ω	0.62A	0.45A

※）The saturation current value (Idc1) is the DC current value having inductance decrease down to 35%. (at 20 ℃)
※）The temperature rise current value (Idc2) is the DC current value having temperature increase up to 40 ℃ TYP. (at 20℃)
※）The rated current as listed is either the saturation current (Idc1)or the temperature rise current (Idc2) depending on which value is lower.
※）Operating temp : -40° to +125°C.
※）Storage Temperature:-40 °C to +125 °C

6. Inductance VS Current：



TOLERANCE LEVEL	
X.	——
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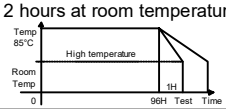
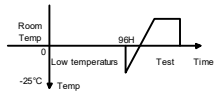
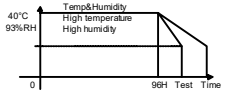
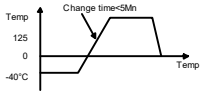
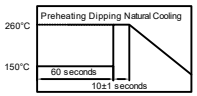
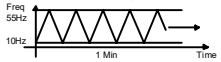
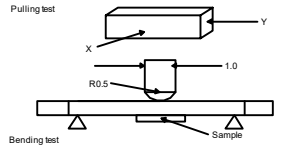
天长市富安电子有限公司
Tianchang Fuan Electronic Co.,Ltd

DWN: Benson.zhan	PART NO: FANR4018-470M0R45			
CHKD: Anson.zhan	TITLE: POWER INDUCTOR			
APPD: Louis.Lin	UNITS	SCALE	SHEET	REV.
	mm	1:1	1/3	A0

7. Reliability Testing.

	Ltem	Specified value	Test methods
1	High temperature Storage test Reference documents: MIL-STD-202G Method 108A	1.No case deformation or change in appearance. 2.ΔL/L≤10%. 3.ΔQ/Q≤30%. 4.ΔDCR/DCR≤10%.	Temperature:85±2°C Time:96±2 hours. Tested not less than 1 hour, not more than 2 hours at room temperature. 
2	Low temperature Storage test. Referencedocuments: IEC 68-2-1A 6.1 6.2	1.No case deformation or change in appearance. 2.ΔL/L≤10%. 3.ΔQ/Q≤30%. 4.ΔDCR/DCR≤10%.	Temperature:25±2°C Time:96±2 hours. Tested not less than 1 hour, not more than 2 hours at room temperature. 
3	Humidity test Reference Documents: MIL-STD-202G Method 103B	1.No case deformation or change in appearance. 2.ΔL/L≤10%. 3.ΔQ/Q≤30%. 4.ΔDCR/DCR≤10%.	1.Dry oven at a temperature of 40°±5°C for 24 hours. 2.Measurements At the end of this period 3.Exposure:Temperature:40±2°C,Humidity: 93±3%RH Time:96±2 hours. 4.Tested while the specimens are still in the chamber. 5.Tested not less than 1 hour, nor more than 2 hours at room temperature. 
4	Thermal shock test Reference documents: MIL-STD-202G Method 107G	1.No case deformation or change in appearance. 2.ΔL/L≤10%. 3.ΔQ/Q≤30%. 4.ΔDCR/DCR≤10%. For T:weighe≤28g:15 Min 28g≤weight≤136g:30 Min	First-40°C for T time,next+125°C Ttime as 1 cycle. Go through 20 cycles. 
5	Solderability test Reference documents: MIL-STD-202G Method 208H IPC J-STD-002B	Terminals area must have 95% Min. Solder coverage.	Dip pads in flux then dip in solder pot at 245±5°C for 5 second. Soler:Sn(93.5)Ag(3.5). Flux:Rosin flux.
6	Heat endurance of Reflow soldering	1.No case deformation or change in appearance. 2.ΔL/L≤10%. 3.ΔQ/Q≤30%. 4.ΔDCR/DCR≤10%.	Preheat:150°C,60 second. Solder:Sn/Ag/Cu. Solder:Temperature:260±5°C. Flux:Rosin flux. Reflow peak time 10 second at 260°C 

7	Vibration test Reference documents: MIL-STD-202G Method 201A	1.No case deformation or change in appearance. 2.ΔL/L≤10%. 3.ΔQ/Q≤30%. 4.ΔDCR/DCR≤10%.	Apply frequency 10~55Hz. 0.75mm amplitude in each of perpendicular direction for 2 hours.(total 6 hours). 
8	Drop test Reference documents: MIL-STD-202G Method 203G	1.No case deformation or change in appearance. 2.ΔL/L≤10%. 3.ΔQ/Q≤30%. 4.ΔDCR/DCR≤10%. For T:weighe≤28g:15 Min 28g≤weight≤136g:30 Min	Packaged & Drop down from 1m with 981m/s2(100G)attitude in 1 angle 1 ridges & 2 surfaces orientations.
9	Terminal strength push test Reference documents: JIS C 5321:1997	Pulling test: DEFINE:A:sectional area of terminal A≤8(Sq M) Force≥5N time:30sec 8(Sq M)<A≤20(Sq M) Force≥10N time:10sec 20(Sq M)<A force≥20N time:10sec Bending test: Soldering the products on PCB,after the pulling testand bending test, terminal should not pull off	Bend the testing PCB at middle point, the deflection shall be 2mm 
10	Resistance to solvent test Reference documents: IEC 68-2-45:1993	No case deformation or change in appearance,or obliteration of marking	To dip parts into IPA solvent for 5±0.5Min, then drying them atroom temp for 5 Min,at last,to brushing making 10 times.
11	Electronic characteristic test of major products	Refer to catalogue of specific products	Refer to catalogue of specific products
12	Overload test Reference documents:	1.During the test no smoke,no peculiar,smell, no fire	Apply twice as rated current for 5 minutes.

TOLERANCE LEVEL	
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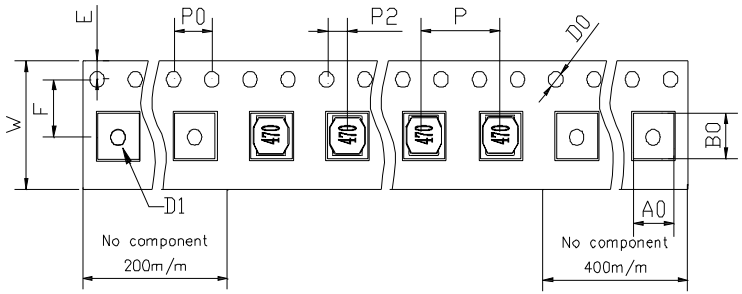
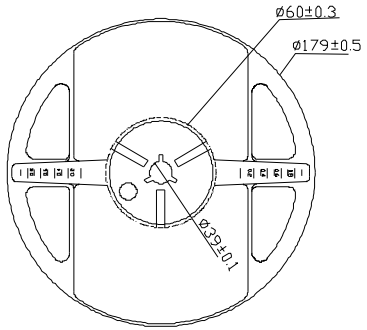
APPD: Louis.Lin		UNITS	SCALE	SHEET	REV.
		mm	1:1	2/3	A0

8. Packaging

800PCS/Reel



A0	4.3	F	5.5
B0	4.3	P	8.0
D0	1.5	P0	4.0
D1	1.5	P2	2.0
E	1.75	W	12.0



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