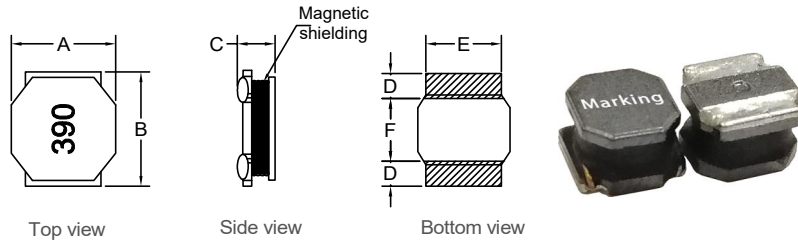


P/N: FASNR4020-390M0R82



Outline Dimensions(Unit:mm)



A	B	C	D	E	F
±0.20	±0.20	Max	REF	REF	REF
4.00	4.00	2.10	1.20	3.50	1.60

Recommended Soldering Temperature Graph.



Electrical Schematic



Suggested Pad layout



H	3.80 REF
I	1.60 REF
J	1.30 REF

	Standard Profile	Standard Profile
Pre-heating	150~180°C,90s±30s	
Heating	above 220°C,30s-60s	above 240°C,30s Max
Peak temperature	245°C±3°C	260°C,10s
Cycle of reflow	2 times	2 times

Electrical Characteristics(@25°C)

Inductance 100KHz,0.25V	DC Resistor	Isat (A Max)	Irms (A)△T≤40°C
39.0uH±20%	0.845Ω Max	L(0.82A)≥70%*L0A	0.46A

\*\*\*Operating Temperature: -40°C~+125°C  
(Temperature rise included)

\*\*\*Storage Temperature: -40°C~+125°C

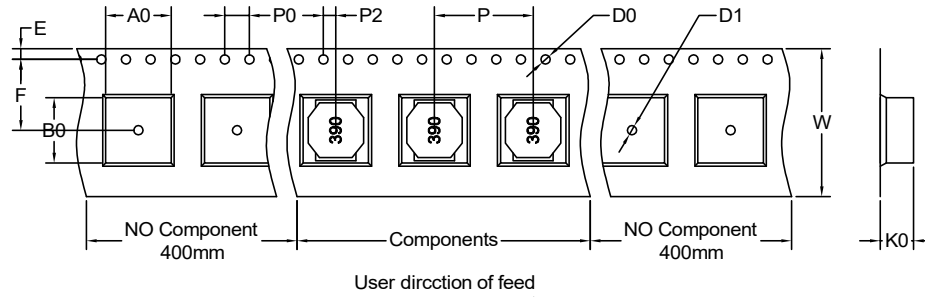
\*\*\*Storage Humidity:RH10%~70%.

\*\*\*Weight:Approx 0.22g.

				Tianchang Fuan Electronic Co Ltd www.fuantronics.net TEL: +86-550-7814888 FAX: +86-550-7831133	 Tolerances unless otherwise specified: (.X)±0.50 (.XX)±0.25 Unit of measurement: mm	Make: Qiumei.Liu Checked: Beson. zhan Approved: Anson. zhan	<b>DRAWING TITLE</b> SURFACE-MOUNT POWER INDUCTORS Material Number: A344020XS230	Customer Name: Document/Rev: 00 Specification Sheet: 1 of 4 Date of Recognition: July./14/2020
REV	DESCRIPTION	APPD	DATE					



Packing Specifications(Unit:mm):



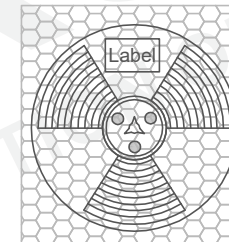
A0	4.25	F	5.50
B0	4.25	D0	1.50
P	8.00	D1	1.50
P0	4.00	K0	2.30
P2	2.00	W	12.0
E	1.75		



Quantity:3000pcs/Reel



Quantity: 3000pcs



PE bag



Outer cases: 30000pcs/box  
Insufficient boxes filled with inner boxes or fillers



Inner box  
Quantity: 15000 pcs/box

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Unit of measurement: mm

Make: Qiumei.Liu  
Checked: Beson. zhan  
Approved: Anson. zhan

**DRAWING TITLE**  
SURFACE-MOUNT  
POWER INDUCTORS  
Material Number: A344020XS230

Customer Name:  
Document/Rev: 00  
Specification Sheet: 2 of 4  
Date of Recognition: July./14/2020



Reliability Testing:

Ltem	Specified value	Test methods
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. 
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. 
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. 
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 

Ltem	Specified value	Test methods
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:weiges≤28g:15 Min 28g≤weights≤136g:30 Min	First-40°C for T time,next+125°C Ttime as 1 cycle. Go through 20 cycles. 
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.
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). 
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:weiges≤28g:15 Min 28g≤weights≤136g:30 Min	Packaged & Drop down from 1m with 981m/s2(100G)attitude in 1 angle 1 ridges & 2 surfaces orientations.
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 

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P/N: FASNR4020-390M0R82

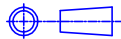


Ltem	Specified value	Test methods
Resistance to solvent test Reference documents: IEC 68-2-45:1993	No case deformation or change in appearance, or obliteration of marking	To dip parts into IPA solvent for 5±0.5Min, then drying them at room temp for 5 Min, at last, to brushing making 10 times.
Electronic characteristic test of major products	Refer to catalogue of specific products	Refer to catalogue of specific products
Overload test Reference documents:	1. During the test no smoke, no peculiar, smell, no fire	Apply twice as rated current for 5 minutes.

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

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REV	DESCRIPTION	APPD	DATE					