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Outline Dimensions(Unit:mm)

Top view

Side view

Bottom view
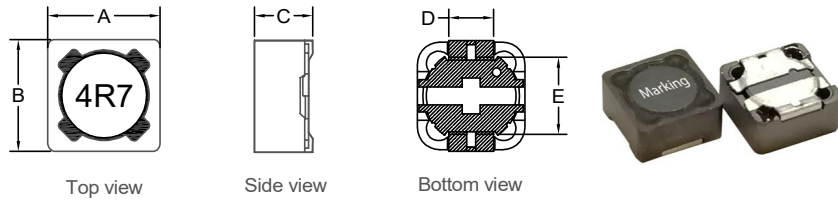
A	B	C	D	E
Max	Max	Max	REF	REF
12.3	12.3	8.00	5.00	7.60

Electronical Schematic

Suggested Pad layout

PAD LAYOUT

H	5.40 REF
I	3.00 REF
J	7.00 REF

Recommended Soldering Temperature Graph.

	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)

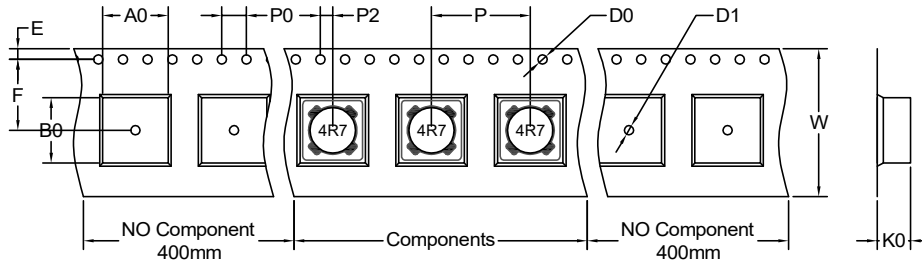| Inductance 100KHz,0.25V	DC Resistor	Isat (A Max)
4.70uH±30%	0.016Ω Max	L(6.80A)≥75%*L0A

***Operating Temperature: -40°C~+125°C
  (Temperature rise included)
***Storage Temperature: -40°C~+125°C
***Storage Humidity:RH10%~70%
***Weight:Approx 3.96g.

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 |

DRAWING TITLE
SMD SHIELDED
POWER INDUCTORS

Material Number: A341207HS020

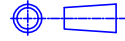| Customer Name: |
| Document/Rev: 00 |
| Specification Sheet: 1 of 4 |
| Date of Recognition: July./14/2020 |

REV	DESCRIPTION	APPD	DATE

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Packing Specfications(Unit:mm):

A0	12.6		F	11.5
B0	12.8		D0	1.50
P	16.0		D1	1.50
P0	4.00		K0	8.25
P2	2.00		W	24.0
E	1.75			

NO Component 400mm

Components

NO Component 400mm

330

Quantity:500pcs/Reel

100

24.5

Label

Quantity: 500pcs

Label

PE bag

Label
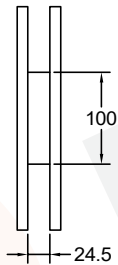
Inner box
Quantity: 1500 pcs/box

Outer cases: 3000pcs/box
Insufficient boxes filled with inner boxes or fillers

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						Checked: Beson. zhan		Document/Rev: 00
								Specification Sheet: 2 of 4
						Approved: Anson. zhan	Material Number: A341207HS020	Date of Recognition: July./14/2020

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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: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.
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: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.
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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DRAWING TITLE
SMD SHIELDED POWER INDUCTORS

Customer Name:
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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 atroom 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:

Pcak temperature 245±3°

217
T2
T1
180

150

Temperature(°C)

60 to 150s

Pre-heating

90±30

time(s)

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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