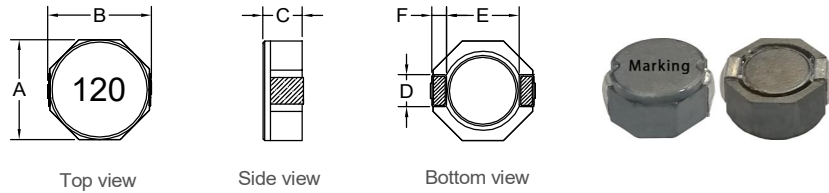


P/N: FASDRH8D38-120M2R85



Outline Dimensions(Unit:mm)



| A    | B    | C    | D    | E    | F    |
|------|------|------|------|------|------|
| Max  | Max  | Max  | REF  | REF  | REF  |
| 8.30 | 10.8 | 4.00 | 2.50 | 6.30 | 1.20 |

Recommended Soldering Temperature Graph.



Electrical Schematic



Suggested Pad layout



|   |          |
|---|----------|
| H | 2.80 REF |
| I | 2.00 REF |
| J | 6.10 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<br>100KHz,0.25V | DC Resistor | Isat<br>(A Max)  |
|----------------------------|-------------|------------------|
| 12.0uH±20%                 | 72.0mΩ Max  | L(2.85A)≥70%*LOA |

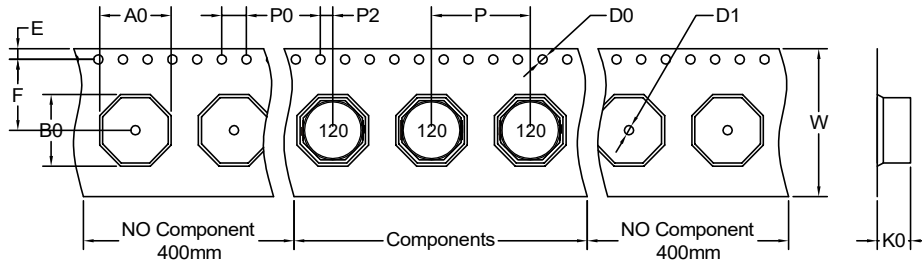
- \*\*\*Operating Temperature: -40°C~+125°C (Temperature rise included)
- \*\*\*Storage Temperature: -40°C~+125°C
- \*\*\*Storage Humidity:RH10%~70%.
- \*\*\*Weight:Approx 1.05g.

|     |             |      |      |   |   |   |   |  |
|-----|-------------|------|------|---|---|---|---|--|
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|-----|-------------|------|------|---|---|---|---|--|

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RoHS

Packing Specifications(Unit:mm):



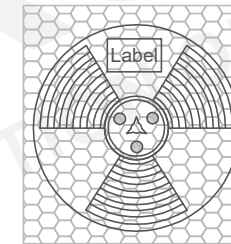
|    |      |    |      |
|----|------|----|------|
| A0 | 9.90 | F  | 7.50 |
| B0 | 8.30 | D0 | 1.50 |
| P  | 16.0 | D1 | 1.50 |
| P0 | 4.00 | K0 | 4.30 |
| P2 | 2.00 | W  | 16.0 |
| E  | 1.75 |    |      |



Quantity:1000pcs/Reel



Quantity: 1000pcs



PE bag



Outer cases: 8000pcs/box  
Insufficient boxes filled with inner boxes or fillers



Inner box  
Quantity: 4000 pcs/box

|     |             |      |      |
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Unit of measurement: mm

Make: Qiumei.Liu  
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Approved: Anson. zhan

**DRAWING TITLE**  
MAGNETIC SHIELDED SURFACE  
MOUNT POWER INDUCTORS  
Material Number: A348D38XS080

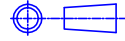
Customer Name:  
Document/Rev: 00  
Specification Sheet: 2 of 4  
Date of Recognition: Mar./20/2020



Reliability Testing:

| Ltem  | Specified value   | Test methods   |
|---|---|--|
| High temperature Storage test<br>Reference documents:<br>MIL-STD-202G Method 108A | 1.No case deformation or change in appearance.<br>2.ΔL/L≤10%.<br>3.ΔQ/Q≤30%.<br>4.ΔDCR/DCR≤10%. | Temperature:85±2°C Time:96±2 hours.<br><br>Tested not less than 1 hour, not more than 2 hours at room temperature.<br>  |
| Low temperature Storage test.<br>Referencedocuments:<br>IEC 68-2-1A 6.1 6.2       | 1.No case deformation or change in appearance.<br>2.ΔL/L≤10%.<br>3.ΔQ/Q≤30%.<br>4.ΔDCR/DCR≤10%. | Temperature:25±2°C Time:96±2 hours.<br><br>Tested not less than 1 hour, not more than 2 hours at room temperature.<br>  |
| Humidity test Reference Documents:<br>MIL-STD-202G Method 103B                    | 1.No case deformation or change in appearance.<br>2.ΔL/L≤10%.<br>3.ΔQ/Q≤30%.<br>4.ΔDCR/DCR≤10%. | 1.Dry oven at a temperature of 40°±5°C for 24 hours.<br>2.Measurements At the end of this period<br>3.Exposure:Temperature:40±2°C, Humidity: 93±3%RH Time:96±2 hours.<br>4.Tested while the specimens are still in the chamber.<br>5. Tested not less than 1 hour, nor more than 2 hours at room temperature.<br> |
| Heat endurance of Reflow soldering  | 1.No case deformation or change in appearance.<br>2.ΔL/L≤10%.<br>3.ΔQ/Q≤30%.<br>4.ΔDCR/DCR≤10%. | Preheat:150°C,60 second.<br>Solder:Sn/Ag/Cu.<br>Solder:Temperature:260±5°C.<br>Flux:Rosin flux.<br>Reflow peak time 10 second at 260°C<br>  |

| Ltem   | Specified value  | Test methods   |
|--|--|--|
| Thermal shock test<br>Reference documents:<br>MIL-STD-202G Method 107G                   | 1.No case deformation or change in appearance.<br>2.ΔL/L≤10%.<br>3.ΔQ/Q≤30%.<br>4.ΔDCR/DCR≤10%.<br>For T:weiges≤28g:15 Min<br>28g≤weights≤136g:30 Min  | First-40°C for T time,next+125°C Ttime as 1 cycle. Go through 20 cycles.<br>                                  |
| Solderability test<br>Reference documents:<br>MIL-STD-202G Method 208H<br>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.<br>Soler:Sn(93.5)Ag(3.5).<br>Flux:Rosin flux.   |
| Vibration test<br>Reference documents:<br>MIL-STD-202G Method 201A                       | 1.No case deformation or change in appearance.<br>2.ΔL/L≤10%.<br>3.ΔQ/Q≤30%.<br>4.ΔDCR/DCR≤10%.  | Apply frequency 10~55Hz. 0.75mm amplitude in each of perpendicular direction for 2 hours.(total 6 hours).<br> |
| Drop test<br>Reference documents:<br>MIL-STD-202G Method 203G                            | 1.No case deformation or change in appearance.<br>2.ΔL/L≤10%.<br>3.ΔQ/Q≤30%.<br>4.ΔDCR/DCR≤10%.<br>For T:weiges≤28g:15 Min<br>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<br>Reference documents:<br>JIS C 5321:1997                   | Pulling test:<br>DEFINE:A:sectional area of terminal<br>A≤8(Sq M)<br>Force≥5N time:30sec<br>8(Sq M)<A≤20(Sq M)<br>Force≥10N time:10sec<br>20(Sq M)<A force≥20N time:10sec<br>Bending test:<br>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<br>                                       |

|     |             |      |      |   |  |                       |   |  |
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|     |             |      |      |   |  | Checked: Beson. zhan  |   | Document/Rev: 00   |
|     |             |      |      |   |  | Approved: Anson. zhan |   | Specification Sheet: 3 of 4<br>Date of Recognition: Mar./20/2020 |

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RoHS

| Ltem   | Specified value   | Test methods   |
|--|---|--|
| Resistance to solvent test<br>Reference documents:<br>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<br>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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