



FANGCHENG ELECTRON
FANGCHENG ELECTRONICS (DONGGUAN) CO., LTD.

方成电子（东莞）有限公司

Fang cheng Electronics(Dong guan) Co,LTD

SPECIFICATION FOR APPROVAL

CUSTOMER:

Part Number : 扁平线大电流插件电感

CUSTOMER Number: Inductor for Digital AMP

CUSTOMER Part :

Fangcheng part : [FC-DLH2315-Series](#)

DATE: 2023-3-26

REV: 01

RoHS
COMPLIANT

Confidential

made in fangcheng:

CUSTOMER APPROD:

prepad	cheed	Approd
黄敏	陈丽萍	刘凡

prepad	cheed	Approd

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<i>zhangli</i>	<i>Yi-pen</i>	<i>David-quan</i>

Customer:

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Notice of Use

For the parameters not prescribed in the *Specification for Approval*, please refer to the following standards or the relative industry standards.

1. Product in packing storage condition : temperature 540, RH70%.

2. A storage of - F C -Electronic products for longer than 12 months is not recommended. Within other effects, the terminals may suffer degradation, resulting in bad solderability. Therefore, all products shall be used within the period of 12 months based on the day of shipment.

3. Do not keep products in unsuitable storage conditions, such as areas susceptible to high temperatures, high humidity, dust or corrosion.

4 Always handle products with care.

5 Don't touch electrodes directly with bare hands as oil secretions may inhibit soldering.

Always ensure optimum conditions for soldering.

6 When this product will be used on a similar or new project to the original one, sometimes it might be unable to satisfy the specifications due to different condition of usage.

7 This inductor itself does not have any protective function in abnormal condition, such as overload, short-circuit, open-circuit conditions, etc. Therefore, it shall be confirmed that there is no risk of smoke, fire, dielectric withstand voltage, insulation resistance, etc., or use in abnormal conditions protective devices or protection circuit in the end product.

8 Hi-Pot test with higher voltage than spec value will damage insulating material and shorten its life.

IPC 020D Joint Industry standard

IEC1007 《Transformer and inductors for use in electronic and telecommunication equipment—Measuring methods and test procedures》
(ROHS or other environmental request)



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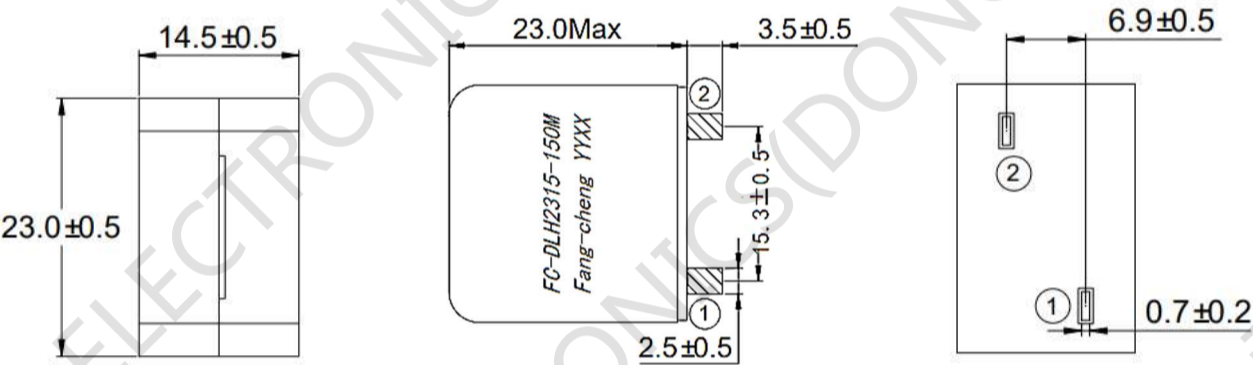
David-yuan

Outline:

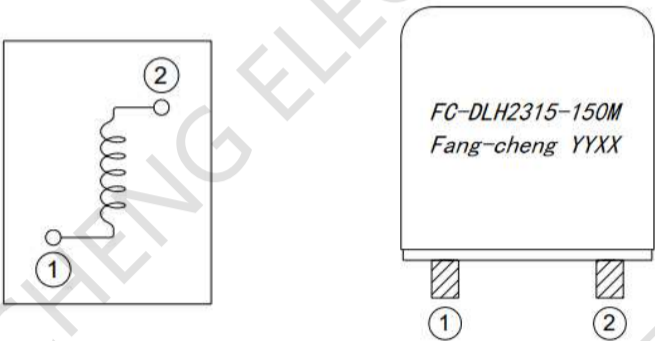
- 1.Compact design saves PCB mounting area
- 2.Magnetically shielded structure: excellent resistance to electromagnetic interference (EMI)磁屏蔽设计结构，高效抗EMI干扰。
- 3.Flat wire winding, low resistance, low temperature rise.扁平线绕组设计，大电流，低损耗.
- 4.Wide temperature and low power consumption material, low core loss.高温宽频设计，低功耗材质.
- 5.Operating temperature : -40℃ +125℃ (Including coil's temperature rise)



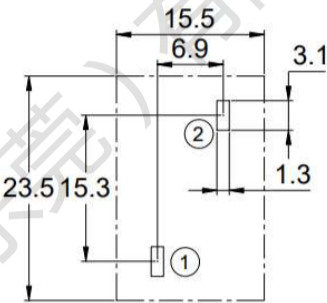
1. Appearance and Dimensions(mm)



2. Schematic :



3. Reference Hole Pattern (mm) :



Description text: Special remind Circuit design, component placement, PCB size and thickness, cooling system and etc. all will affect the product temperature. Please verify the product temperature in the final application

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4. Electrical Characteristics :

Part No.	Inductance (μH) $\pm 20\%$	D.C.R. (m Ω)MAX		Saturation current (A)	Temperature rise current (A)
FC-DLH2315-100M	10.0	5.2	6.5	45.5	14A/typ-16A/MAX
FC-DLH2315-150M	15.0	5.2	6.5	30.5	14A/typ-16A/MAX
FC-DLH2315-220M	22.0	5.2	6.5	23.5	14A/typ-16A/MAX

All data is tested based on 25°C ambient temperature

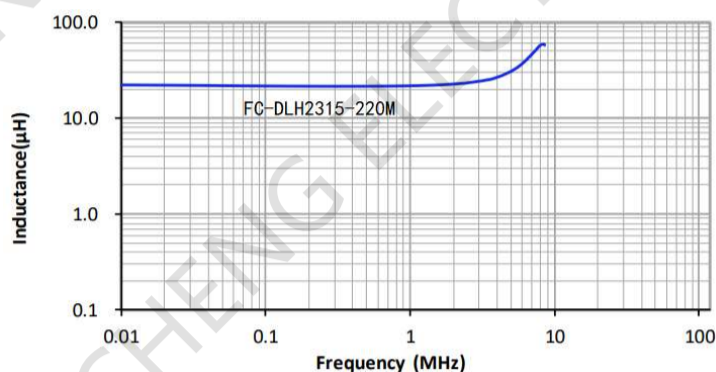
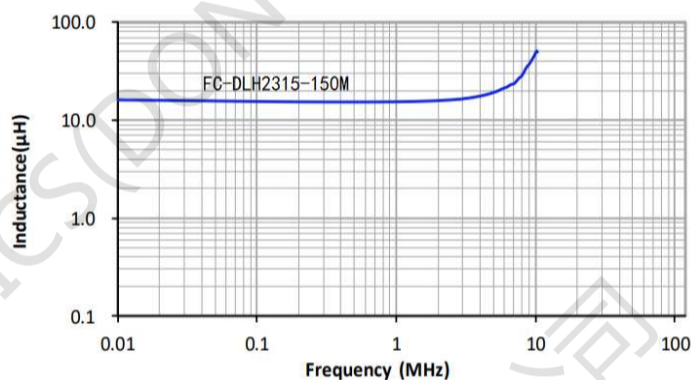
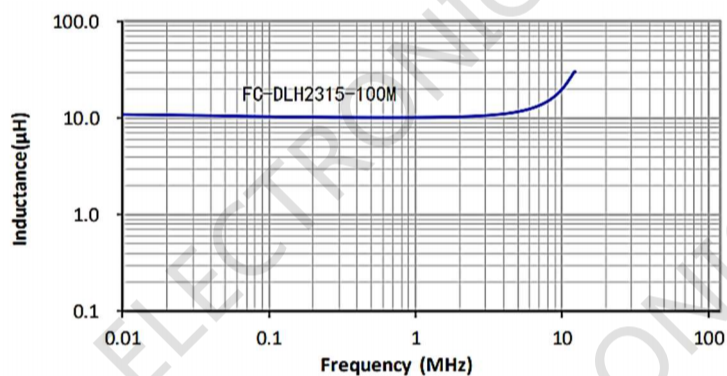
1. Inductance measure condition at 100kHz, 1.0V.

2. Saturation current the actual value of DC current when the inductance decrease 25% of its initial value

3. Temperature rise current the actual value of DC current when the temperature rise is $\Delta T 40^\circ\text{C}$ ($T_a = 25^\circ\text{C}$).

4. Special remind Circuit design, component placement, PCB size and thickness, cooling system and etc. all will affect the product temperature. Please verify the product temperature in the final application

5. Inductance VS Frequency :



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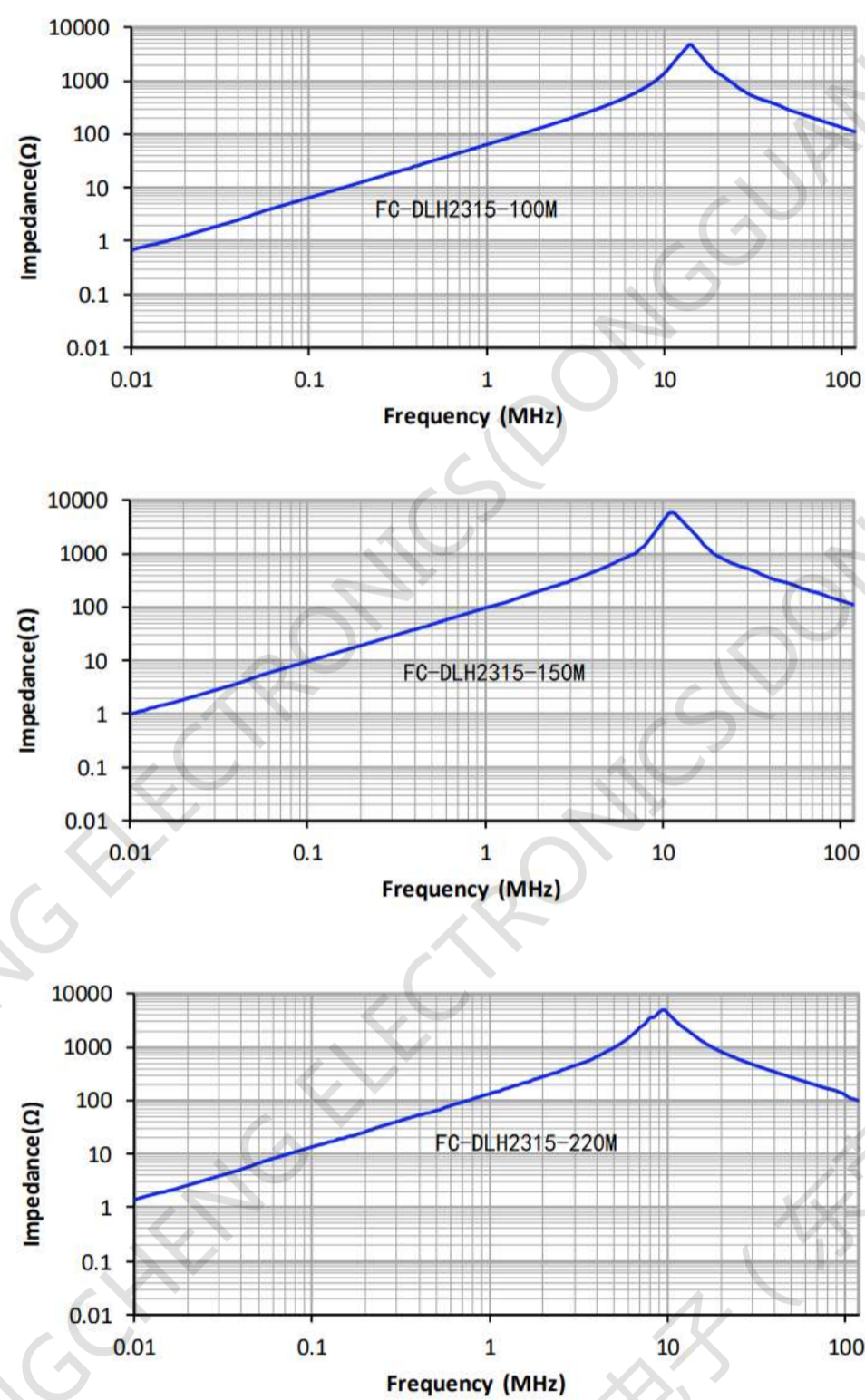
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6. Impedance vs Frequency



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7.Reliability and test condition:

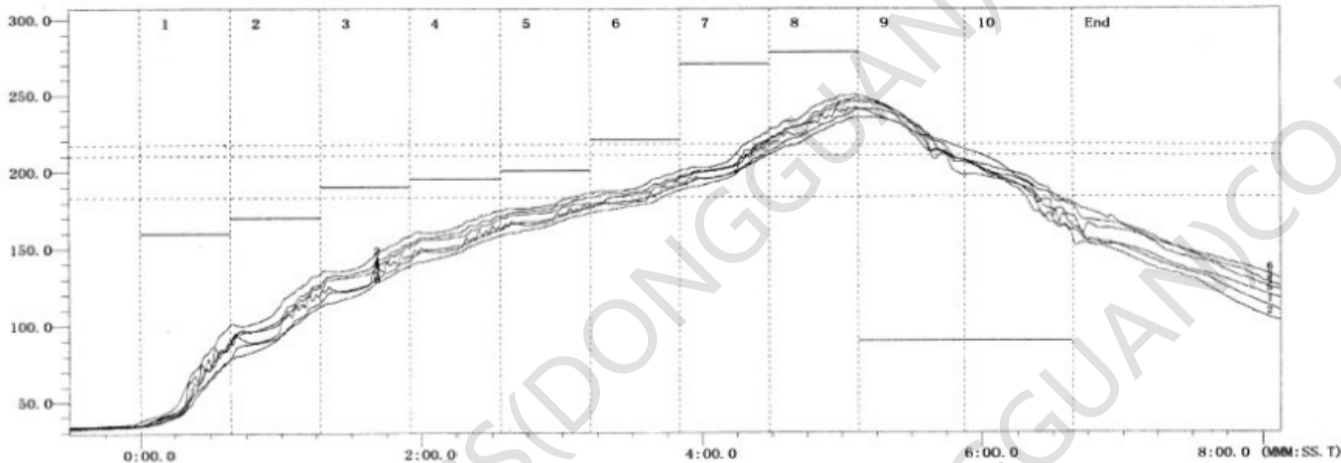
Test item	test condition	Remark
Cold Operating Test	GB2423.1 Ad	
Heat Operating Test	GB2423.2 Bd	
Cold Storage Test	GB2423.1 Ab	
Heat Storage Test	GB2423.2 Bb	
Steady Damp Heat Test	GB2423.3 Cb	
Circular Damp Heat Test	GB2423.4 Db	
Temperature Cycling Test	GB2423.22 Nb	
Temperature Shock Test	GB2423.22 Na	
Vibration Test	GB2423.10~15 Fc, Fdb	
Mechanical Shock Test(Bump)	GB2423.5 Eb	
Free Fall Test	GB2423.8 Ed	
Solderability	GJB360A-96	
High Temperature Step Stress Test	Enhancement Test Specifications	
Low Temperature Step Stress Test		
High-speed Thermal Cycling		
Limit Vibration		
Composite Stress		
Highly-Accelerated Temperature and Humidity Stress Test(HAST) (		



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8. Soldering Specification:

8.1 Reflow Profile for Components.



8.2 波峰焊温度:255℃±5℃;时间:不少于 7 秒.

波峰焊预热温度:100 至 160℃;时间:不少于 10 秒.

8.3 高温耐热性:

在 260℃ 的熔融钎料中，停留时间不少于 10 秒，无质量问题。

8.4 返修温度和时间:

温度：350℃；时间：不少于 5 秒。

8.5 焊接次数:

元器件能承受的焊接次数不少于 5 次。



9.1 包装:

- 1)包装箱上应标明产品型号、名称、数量、出厂日期、承制方名称及出厂检验章；
- 2)货物运达客户方后，包装箱封条应完好，箱体无破损、开裂等现象；
- 3)电感用木箱或其他材料包装，方便拆卸，四周用软性材料填充；

9.2 外观:

- 1)产品应有合格证和耐擦防水洗标签，应注明型号、规格；
- 2)产品外观整洁，应无破损、划伤；

9.3 检验:

- 1)产品生产中必须全数进行电气性能；箱内应有 100%电气性能合格保证书或检测报告；
- 2)产品出货前按批次，必须根据承认书按国家行业标准进行抽样检验，合格后出具出厂检验报告，记录抽样测试数据，在每批次包装尾箱中放置一份。注：批次按定单号发货为准

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