



**SPECIFICATION FOR APPROVAL**

产品规格承认书

**High Current Power Inductor**

大电流功率电感

CUSTOMER.

MODEL NO.

MTP2915系列

CUSTOMER'S PART NO.

LILE NO.

DATE.

2020.09.27

REVISION.

A/0

CUSTOMER APPROVE

DATE:

DRAWING

DRAWN BY

CHECK BY

APPROVAL BY

DATE: 2020.09.27



**sira**  
CERTIFICATION



IATF16949 / ISO9001 / ISO14000

**深圳市迈翔科技有限公司**

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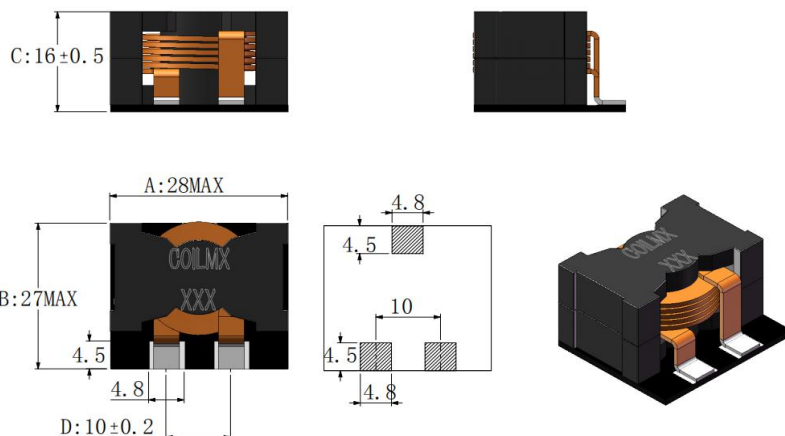
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CUSTOMER		MODEL NO.	MTP2915系列	REVISION	A/0
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## 1.PRODUCT DIMENSION

UNIT:mm



A	28MAX
B	27MAX
C	16±0.5
D	10±0.2

>组立式设计，机构坚固。高电感值，大电流低磁损，低阻抗，寄生电容小。

>扁平线绕组，实现极低的直流电阻。温升电流饱和和电流受环境条件影响小。

## 2.ELECTRICAL REQUIREMENTS

Part NO. 型号	Inductance(uH) 电感值±20%	DCR (mΩ)MAX	Saturationcurrent(A) 饱和电流	Temperature risecurrent (A)温升电流
MTP29151R5MC	1.5	2.0	60	30
MTP2915-2R2MC	2.2	2.0	60	30
MTP2915-3R3MC	3.3	2.0	60	30
MTP2915-4R7MC	4.7	2.0	55	30
MTP2915-6R8MC	6.8	2.0	40	30
MTP2915-100MC	10	2.0	27	30
MTP2915-150MC	15	2.0	16	30
MTP2915-220MC	22	2.0	10	30
MTP2915-270MC	27	2.0	8	30
MTP2915-330MC	33	2.0	6	30

## 3.CHARACTERISTICS

- (1). All test data is based on 25°C ambient.
- (2). DC current(A)that will cause an approximate  $\Delta T40^{\circ}\text{C}$
- (3). DC current(A)that will cause L0 to drop approximately 20%Typ
- (4). Operating temperature range:  $-55^{\circ}\text{C}\sim+125^{\circ}\text{C}$
- (5).The part temperature (ambient + temp rise)should not exceed  $125^{\circ}\text{C}$  under worst case operating conditions. circuit design, component.PWB trace size and thickness,airflow and other cooling provision all affect the part temperature. Part temperature should be verified in the den application

## 4.SPECIAL REQUEST

- (1)Lettering XXXon top of the body.

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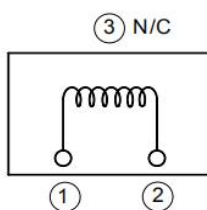
**5.PRODUCT IDENTIFICATION**

MTP 2915 - XXX M

①      ②      ③      ④

①、 Series name    ②、 Product dimensions    ③、 Inductance

④、 Tolerance: M±20%, N±30%.

**6.ELECTRICAL SCHEMATICS****7.APPLICATION**

- (1)Low profile,high current power supplies.
- (2)Battery powered devices.
- (3)DC/DC converters in distributed power systems.
- (4)DC/DC converters for field programmable gate array.

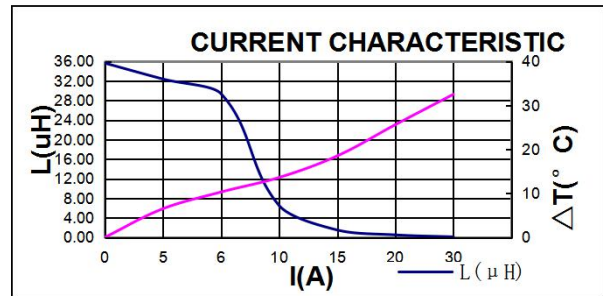
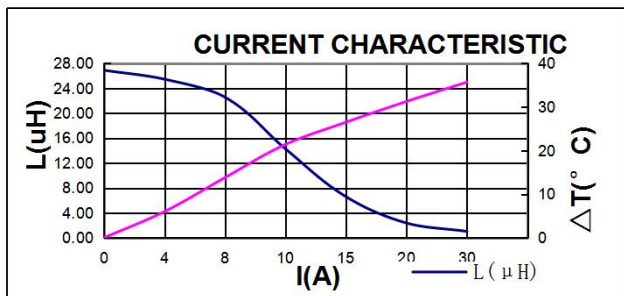
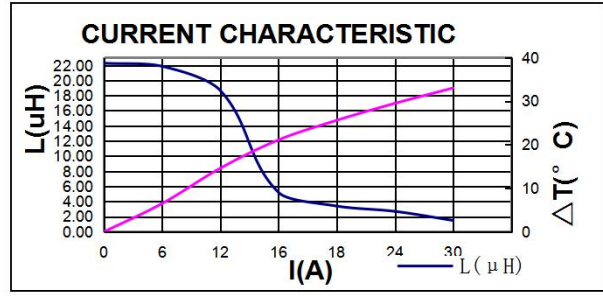
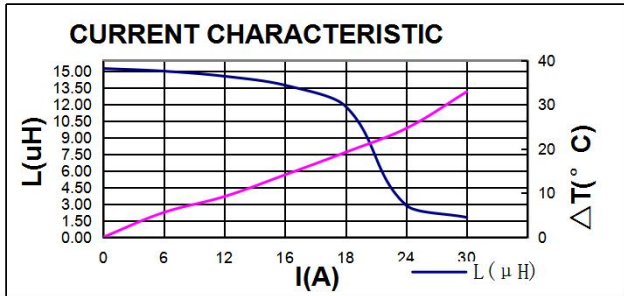
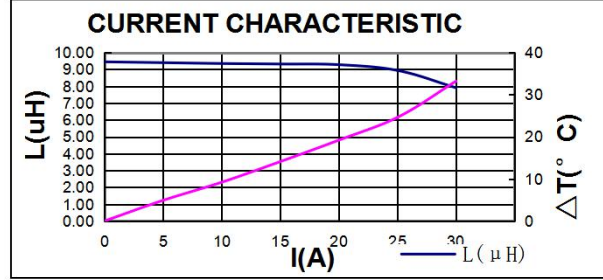
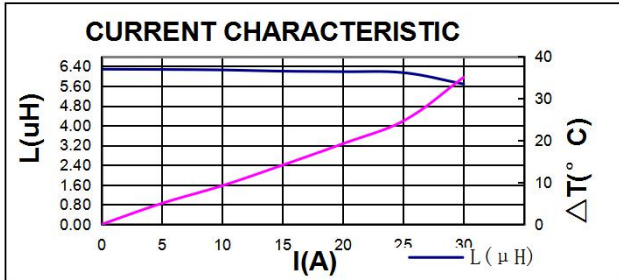
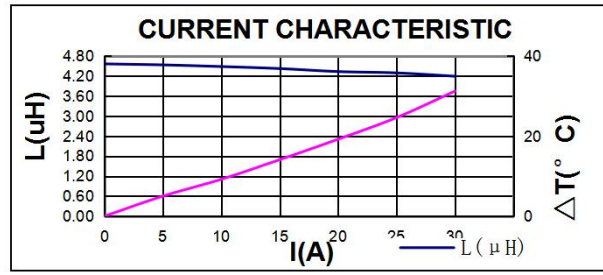
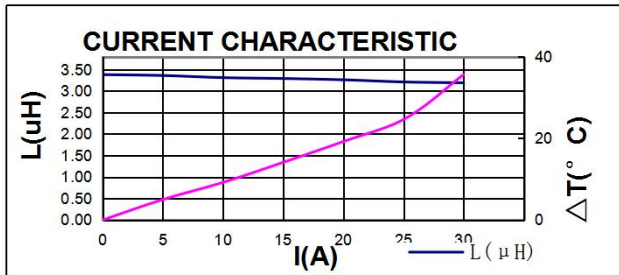
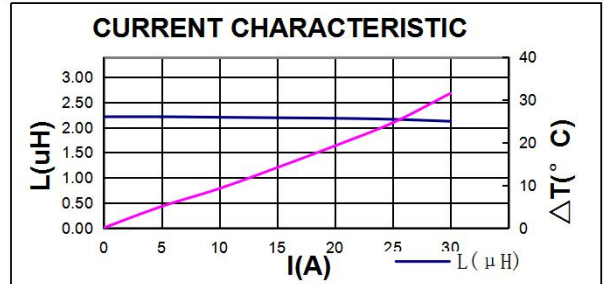
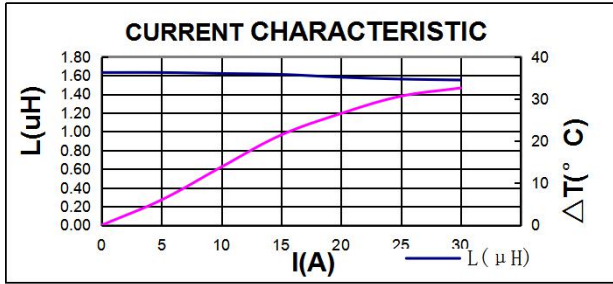
**8.FEATURES**

- (1)Assemblage design, sturdy structure.
- (2)High inductance, high current, low magnetic loss,low ESR, small parasitic capacitance.
- (3)Flat wire winding, achieve a low D.C. Resistance.
- (4)Temperature rise current and saturation current is less influenced by environment.

**9.RECOMMENDED PCB LAYOUT**

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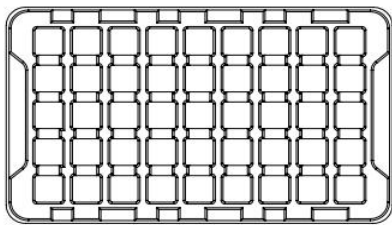
10.Saturation current VS temperature rise current curve



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<b>11.可靠性Reliability</b>					
项目Item	规格与需求 Specification and Requirement	测试方法Test Method			
可焊性 Solderability test	沾锡面积不得小于95%上锡面 Terminals area must have 95% min solder coverage	上锡升温曲线Solder heat proof: (1) 预热: 160±10℃持续90s Preheating: 160±10℃ for 90 seconds (2) 恒温时段: 245±5℃持续2±0.5s Retention time: 245±5℃ for 2±0.5 seconds			
振动测试 Vibration test	感值变化: 不超过±5% 且无破裂等机械损伤产生 Inductance change: Within±5% Without mechanical damage such as break	(1) 振动频率(10Hz 55Hz 10Hz)60s为一个周期 Vibration frequency: (10Hz to 55Hz to 10Hz) in 60 seconds as a period (2) 振动时间 Vibration time: 三维正交坐标系每个方向振动(周期)循环2小时 Period cycled for 2 hours in each of 3 mutual perpendicular directions (3) 振幅 Amplitude: 1.5 mm Max			
冲击测试 Shock test	感值变化: 不超过±5% 且无破裂等机械损伤产生 Inductance change: Within±5% Without mechanical damage such as break	(1) 最大振幅 Peak value: 100G (2) 脉冲波长 Duration of pulse: 11ms (3) 三维正交坐标系每个方向正负方向冲击3次 Times in each positive and negative direction of 3 mutual perpendicular directions			
冷热冲击 Thermal shock	感值变化: 不超过±5% 且无破裂等机械损伤产生 Inductance change: Within±5% Without mechanical damage such as break	(1)重复以上100个循环Repeat 100 cycle as follow (-55±2℃,30±3分钟) 室温5分钟 (-55±2℃,30±3 minutes) Room temperature,5 minutes (+125±2℃,30±3分钟) 室温5分钟 (+125±2℃,30±3 minutes) Room temperature,5 minutes (2)恢复: 测试于标准条件下恢复48+4/-0小时(参考注释1) Recovery:48+4/-0 hours of recovery under the standard condition after the test. (see Note1)			
耐高温测试 High temperature life test	感值变化: 不超过±5% 且无破裂等机械损伤产生 Inductance change: Within±5% Without mechanical damage such as break	(1)环境条件: 85±2℃ Environment condition : 85±2℃ 应用电流: 额定电流 Applied current: Rated current (2)持续时间: 1000+4/-0 小时(参考注释1) Duration:1000+4/-0 hours (see Note1)			
耐湿测试 Humidity Resistance	感值变化: 不超过±5% 且无破裂等机械损伤产生 Inductance change: Within±5% Without mechanical damage such as break	(1)环境条件: 60±2℃ Environment condition : 60±2℃ 湿度: 90~95% Humidity:90~95% 应用电流: 额定电流 Applied current: Rated current (2)持续时间: 1000+4/-0 小时(参考注释1) Duration:1000+4/-0 hours (see Note1)			
低温存放测试Low temperature life test	感值变化: 不超过±5% 且无破裂等机械损伤产生 Inductance change: Within±5% Without mechanical damage such as break	(1)存储温度 Store temperature -55±2℃下存放 1000+4/-0 小时 -55±2℃ for total 1000+4/-0 hours			
高温存放测试High temperature life test	感值变化: 不超过±5% 且无破裂等机械损伤产生 Inductance change: Within±5% Without mechanical damage such as break	(1)存储温度 Store temperature +125±2℃下存放 1000+4/-0 小时 +125±2℃ for total 1000+4/-0 hours			

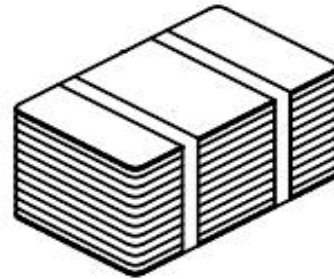
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**12、包装 Packaging**

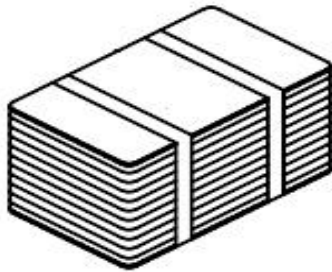


Quantity/Tray:40PCS

Tray X 8

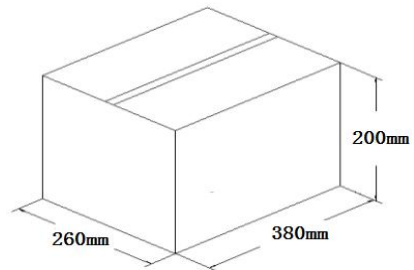


Quantity/Bundle:320PCS



Quantity/Bundle:320PCS

Bundle X 1



Quantity/Carton:280PCS

**包装数量packing quantity**

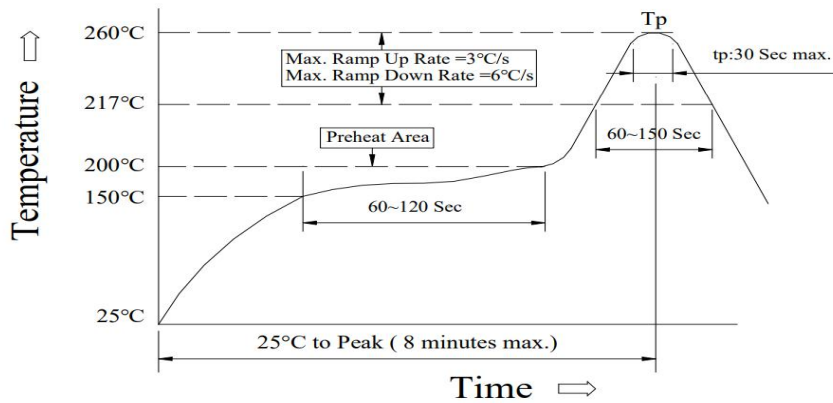
Product Series 产品系列	Quantity/Tray 数量/盘	Quantity/Bundle 数量/捆	Quantity/Carton 数量/箱
MTP2915	40PCS	320PCS	320PCS

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Reflow curve

※ Reflow Profile

Power Choke Coil Type



1. Reflow Soldering Method

Reflow Soldering	Tp:255~260°C	Max.30 seconds ( tp )
	217°C	60~150 seconds
Pre-Heat	150 ~ 200°C	60~120 seconds
Time 25°C to peak temperature	8 minutes max.	

2. Soldering iron method : 350±5°C Max.3 seconds.



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