



**SPECIFICATION FOR APPROVAL**

产品规格承认书

**High Current Power Inductor**

大电流功率电感

CUSTOMER.

MODEL NO.

MTP2918E-H系列

CUSTOMER'S PART NO.

LILE NO.

DATE.

2023.04.17

REVISION.

A/0

CUSTOMER APPROVE		
DATE:		
DRAWING		
DRAWN BY	CHECK BY	APPROVAL BY
DATE: 2023.04.17		



**sira**  
CERTIFICATION



IATF16949 / ISO9001 / ISO14000

**深圳市迈翔科技有限公司**

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<b>CUSTOMER</b>		<b>MODEL NO.</b>	MTP2918E-H系列	<b>REVISION</b>	A/0
<b>FILE NO.</b>		<b>PART NO.</b>		<b>DATE</b>	2023.04.17

1.PRODUCT DIMENSION		UNIT:mm	
	<b>A</b>	27.9Max	
	<b>B</b>	19.8Max	
	<b>C</b>	17.78Max	
	<b>D</b>	27.94Max	
	<b>E</b>	6.63±0.51	
	<b>F</b>	3.8±0.2	
	<b>G</b>	3.8Min	
	<b>备注</b>	印字按照不一样的感量区分印字	

**2.ELECTRICAL REQUIREMENTS**

Part NO. 型号	Inductance(uH) 电感值±10%	DCR ( mΩ)MAX	Saturationcurrent(A) 饱和电流	Temperature risecurrent (A)温升电流
	500KHz/0.1V	AT25°C MICROTEST 6377	500KHz/0.1V	500KHz/0.1V
MTP2918E-3R3M-H	3.3	2.86	85.0	28
MTP2918E-4R7M-H	4.7	2.86	61.2	28
MTP2918E-6R8M-H	6.8	2.86	43.0	28
MTP2918E-100M-H	10	2.86	30.0	28
MTP2918E-150M-H	15	2.86	21.2	28
MTP2918E-220M-H	22	2.86	14.0	28
MTP2918E-330M-H	33	2.86	8.7	28

**3.CHARACTERISTICS**

- (1). All test data is based on 25°C ambient.
- (2). DC current(A)that will cause an approximate ΔT40°C
- (3). DC current(A)that will cause L0 to drop approximately 20%Typ
- (4). Operating temperature range: -40°C~+125°C
- (5).The part temperature (ambient + temp rise)should not exceed 125°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 **COILMX**  
MTP2918E-XXXM-H on top of the body.

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**5.PRODUCT IDENTIFICATION**

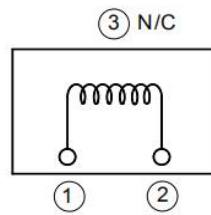
XXX XXXX - XXX X

① ② ③ ④

①、 Series name ②、 Product dimensions ③、 Inductance

④、 Tolerance: M±20%, N±30%.

**6.ELECTRICAL SCHEMATICS**



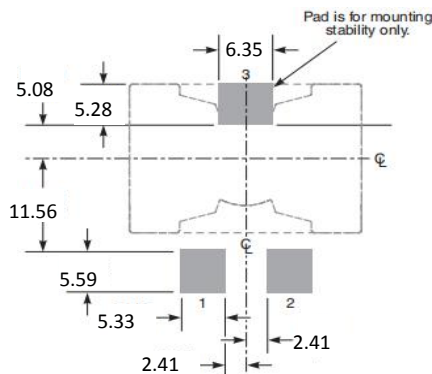
**7.APPLICATION**

- (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**

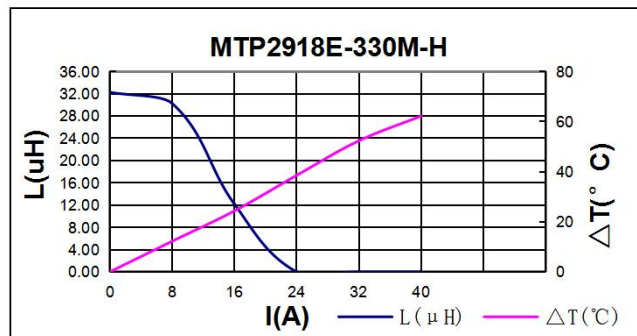
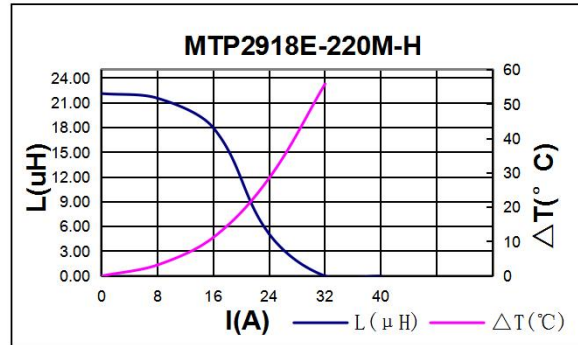
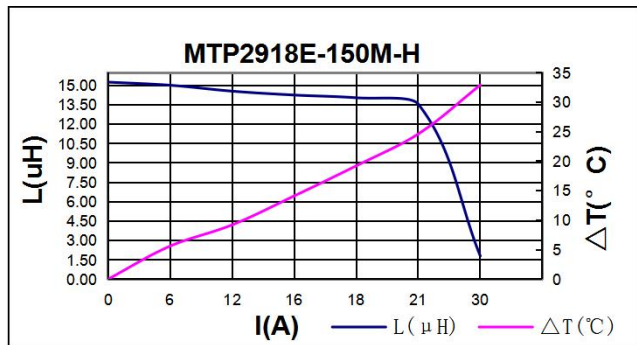
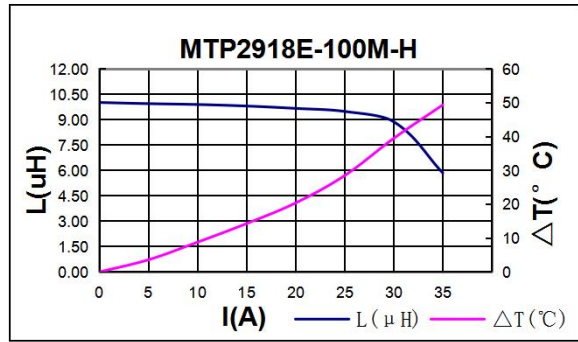
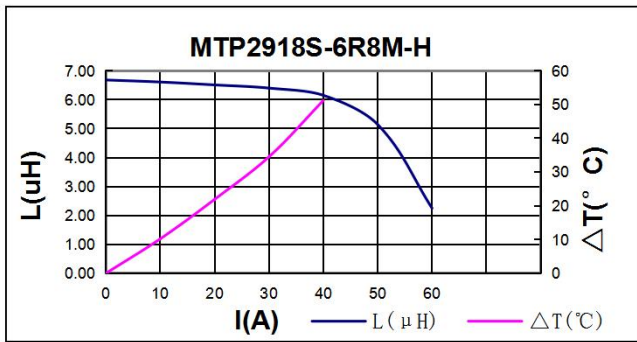
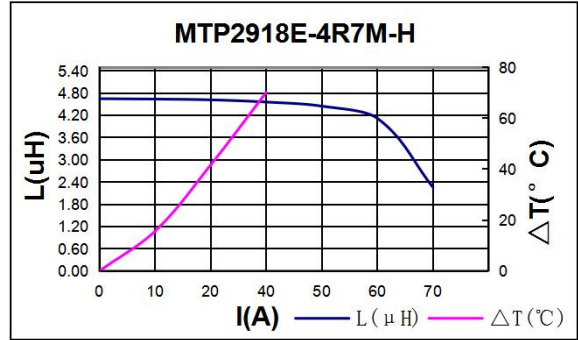
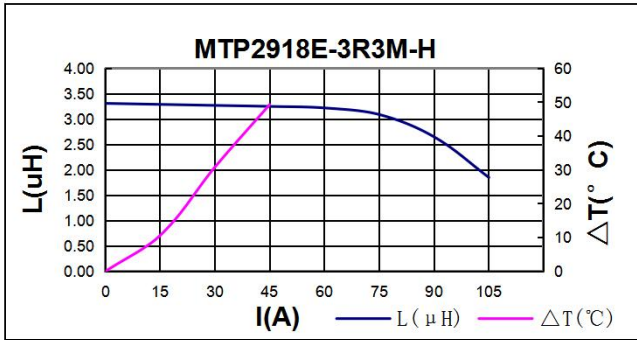
- (1)Assemblage design, sturdy structure.
- (2)High inductance, high current, low magnetic loss,low ESR, small parasitic capacitance.
- (3)Flat wire winding, achieve a low D.C. Resistance.
- (4)Temperature rise current and saturation current is less influenced by environment.

**9.RECOMMENDED PCB LAYOUT**



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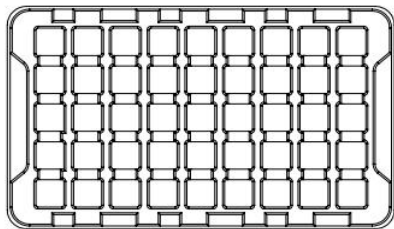
10.Saturation current VS temperature rise current curve



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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 Room temperature,5 minutes (+125±2℃,30±3分钟) 室温5分钟 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		

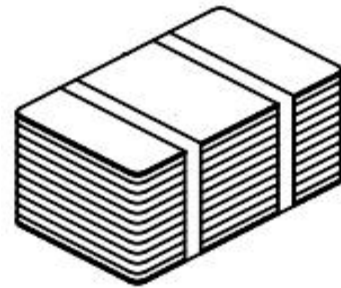
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12、包装 Packaging

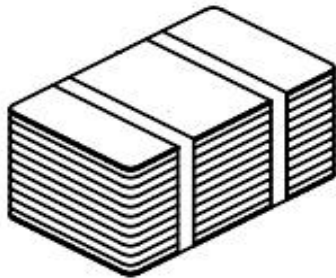


Quantity/Tray:40PCS

Tray X 7

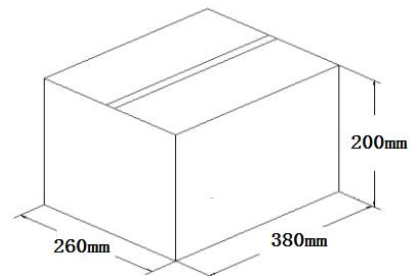


Quantity/Bundle:280PCS



Quantity/Bundle:280PCS

Bundle X 1



Quantity/Carton:280PCS

包装数量packing quantity

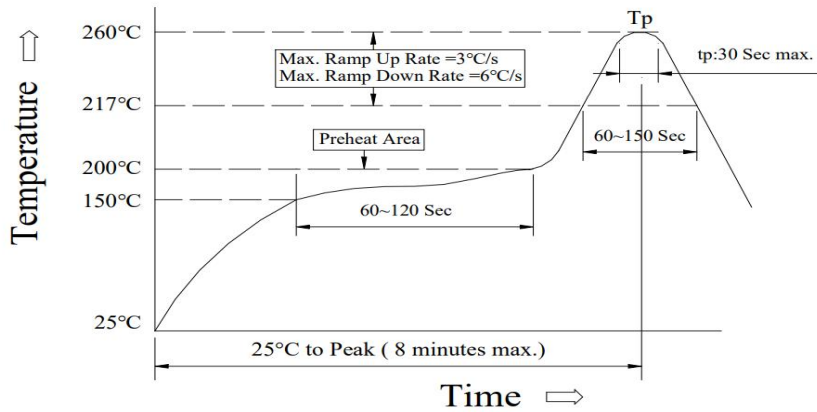
Product Series 产品系列	Quantity/Tray 数量/盘	Quantity/Bundle 数量/捆	Quantity/Carton 数量/箱
MTP2918	40PCS	280PCS	280PCS

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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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[1812LS-224XJ](#) [1812LS-563XJ](#) [1812LS-683XJ](#) [1812LS-824XJ](#) [NIN-FB101JTR110F](#) [NIN-FB471JTR62F](#) [NIN-FC1R5JTR220F](#) [NIN-](#)  
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