



SPECIFICATION FOR APPROVAL

产品规格承认书

SMD POWER INDUCTOR

功率电感

CUSTOMER.

MODEL NO.

MTF2212-330M

CUSTOMER'S PART NO.

LILE NO.

DATE.

2022.07.04

REVISION.

A0

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



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CUSTOMER		MODEL NO.	MTF2212-330M	REVISION	A0
FILE NO.		PART NO.		DATE	2022.07.04

1.PRODUCT DIMENSION	UNIT:mm	
	A	22±1.0
	B	22.5±1.0
	C	12±0.4
	D	11±1.0
	E	5.5±1.0
	F	3.5±1.0

2.ELECTRICAL REQUIREMENTS			
PARAMETER	SPECIFICATION	CONDITION	TEST INSTRUMENTS
L(uH)	33±20%	100KHz/0.25V	MICROTEST 6377
DCR(mΩ)	15MAX	At 25℃	TH2512A
I sat(A)	17A TYP L0A*70%	100KHz/0.25V	MICROTEST 6377+6220
I rms(A)	12A TYP ΔT≤40℃	100KHz/0.25V	MICROTEST 6377+6220

3.MATERIAL LIST		
ITEM	MATERIAL	SUPPLIER
CORE	DR:22*22*12	YUZHENG/MAIXIANG
WIRE	扁平线/220℃	SONGTIAN/JIATENG
SOLDER	TIN-Sn99.95	QIANDAO

- 4.CHARACTERISTICS**
- (1). All test data is based on 25℃ ambient.
 - (2). DC current(A)that will cause an approximate ΔT40℃
 - (3). DC current(A)that will cause L0 to drop approximately 30%Typ
 - (4). Operating temperature range: -40℃~+125℃
 - (5).The part temperature (ambient + temp rise)should not exceed 125℃ 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

- 5.SPECIAL REQUEST**
- (1)Lettering 330 on top of the body.

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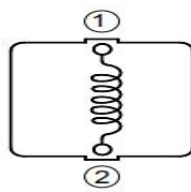
6.PRODUCT IDENTIFICATION

XX XXXX - XXX X X

- ① ② ③ ④ ⑤

- ①、 Product Symbol ②、 Dimensions ③、 Inductance
④、 Tolerance: M±20%, N±30%. ⑤、 Material

7.ELECTRICAL SCHEMATICS



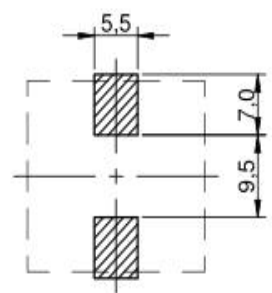
8.APPLICATION

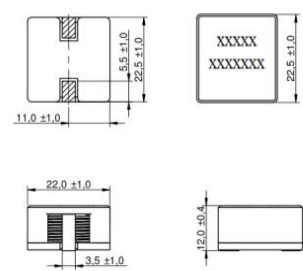
- (1)Low profile,high current power supplies.
- (2)Battery powered devices.
- (3)DC/DC converters in distributed power systems.
- (5)DC/DC converters for field programmable gate array.

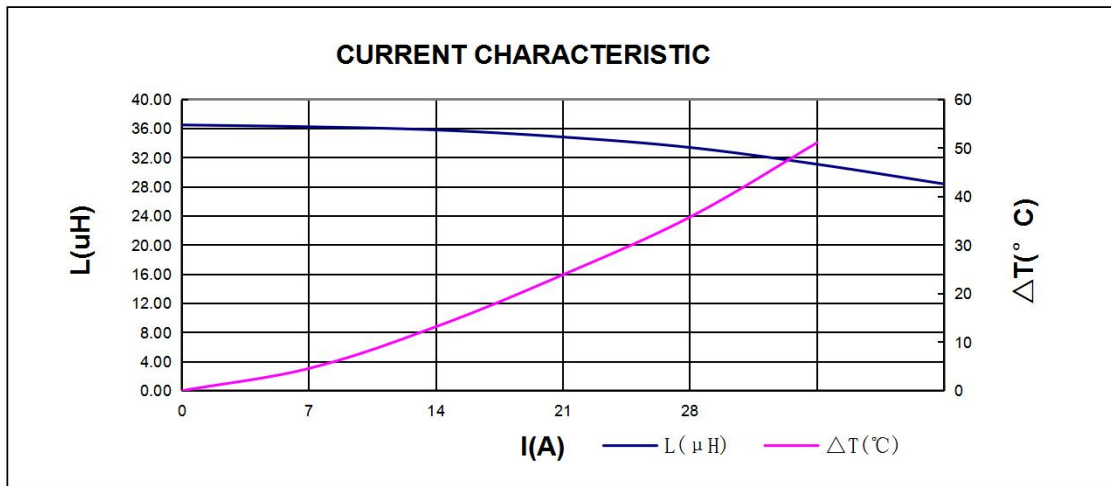
9.FEATURES

- (1)ROHS compliant.
- (2)Super low resistance,ultra high current rating.
- (3)high performance(I sat)realized by metal dust core.
- (4)Frequency Range:up to 1MHZ.

10.RECOMMENDED PCB LAYOUT



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SORT	ITEM	A	B	C	D	E	F			
PRODUCT & DIMENSION	SPEC	22±1.0	22.5±1.0	12±0.4	11±1.0	5.5±1.0	3.5±1.0			
	1	22.36	23.21	11.92	11.15	5.56	3.55			
	2	22.38	23.26	11.90	11.09	5.57	3.56			
	3	22.27	23.29	11.84	11.07	5.58	3.55			
	4	22.24	23.25	11.93	11.06	5.58	3.56			
	5	22.25	23.15	11.88	11.15	5.57	3.57			
	X	22.30	23.23	11.89	11.10	5.57	3.56			
	R	0.14	0.14	0.09	0.09	0.02	0.02			
ELECTRICAL & REQUIREMENTS	ITEM	L(μH)	DCR (mΩ)	I sat(A)	DC BIAS	Irms	SHAPE:			
	SPEC	33±20%	15MAX	17A TYP L0A*70%		12A TYP ΔT≤40°C				
	1	37.46	11.97	28.67	-23.5%	OK				
	2	37.17	11.96	28.53	-23.2%	OK				
	3	37.67	11.98	28.82	-23.5%	OK				
	4	36.52	11.99	28.51	-21.9%	OK				
	5	36.93	11.94	28.78	-22.1%	OK				
	X	37.15	11.97	28.66	-22.8%					
	R	1.15	0.05	0.31	0.02					



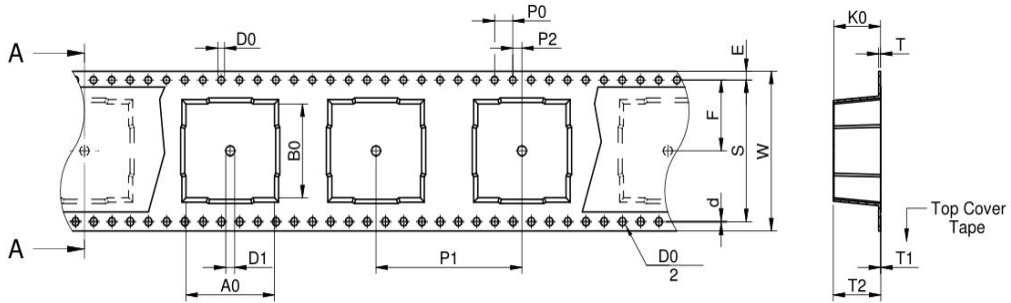
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FILE NO.		PART NO.		DATE	2022.07.04
项目Item	规格与需求 Specification and Requirement	测试方法Test Method			
可焊性 Solderability test	沾锡面积不得小于95%上锡面 Terminals area must have 95% min solder coverage	上锡升温曲线Solder heat proof: (1) 预热: 160±10℃持续90s Preheating: 160±10℃ 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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11、包装 Packaging

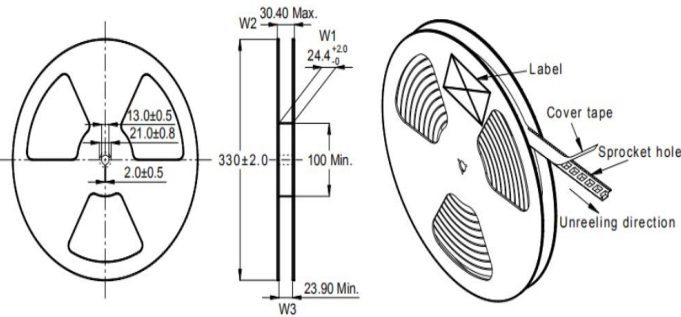
11.1、尺寸 Dimensions

11.1.1 包装料带尺寸 Tape packaging dimensions



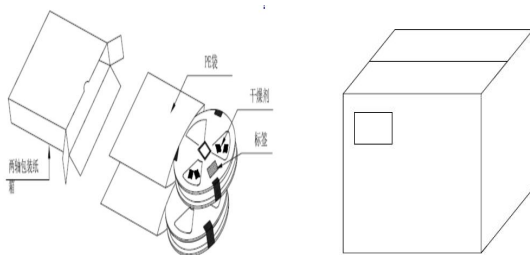
W	A0	B0	K0	P	F	E	D0	P0	T

11.1.2 卷轴尺寸 Reel dimensions



项目	尺寸(mm)
A	330.0 ± 0.5
B	100.0 ± 0.5
C	30.5MAX
G	100MAX

11.1.3 外箱尺寸Carton dimensions

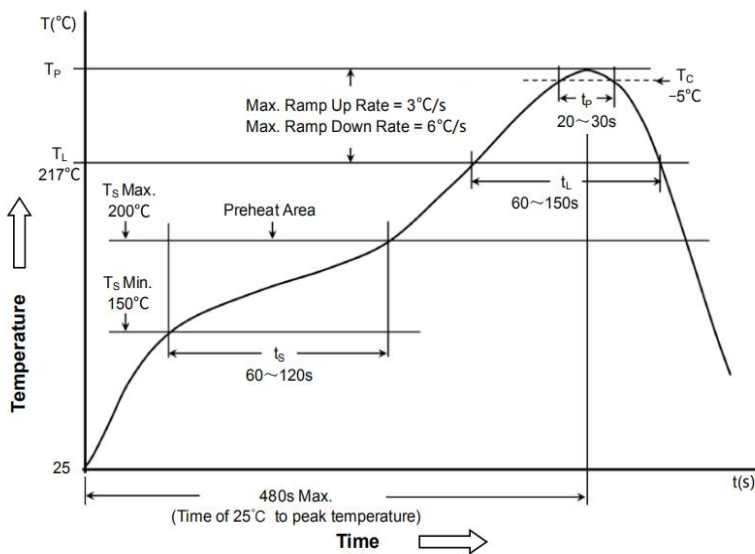


项目	数量 (PCS)
1卷轴	
1内箱	
1外箱	

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Reflow curve

※ Reflow Profile



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.