



SPECIFICATION FOR APPROVAL

产品规格承认书

SMD POWER INDUCTOR

功率电感

CUSTOMER.

MODEL NO.

MBH127-151M

CUSTOMER'S PART NO.

LILE NO.

DATE.

2020.07.20

REVISION.

A0

CUSTOMER APPROVE

DATE:

DRAWING

DRAWN BY

CHECK BY

APPROVAL BY

曾伟

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DATE: 2020.07.20



IATF16949 / ISO9001 / ISO14000

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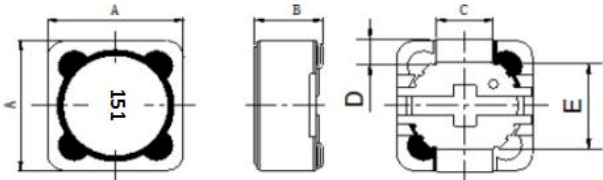
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1.PRODUCT DIMENSION		UNIT:mm	
 <p style="text-align: center;">Note: The UL tube on the winding</p>		A	12.5MAX
		B	8.0MAX
		C	4.9±0.2

2.ELECTRICAL REQUIREMENTS			
PARAMETER	SPECIFICATION	CONDITION	TEST INSTRUMENTS
L(uH)	150±20%	100KHz/0.25V	MICROTEST 6377
DCR(mΩ)	240MAX	At 25°C	TH2512A
I sat(A)	1.8A TYP L0A* 70%	100KHz/0.25V	MICROTEST 6377+6220

3.MATERIAL LIST		
ITEM	MATERIAL	SUPPLIER
CORE	JN4H DR9. 85*7. 0mm B=6. 2mm JN4H RI12.2*6.8*10.8 mm	利堡
WIRE	2UEW-0.35*44.5TS	太平洋/台一
SOLDER	TIN-Sn99.95	千島

- 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 30%Typ
 - (4). Operating temperature range: -55°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)Lettering151 on top of the body.

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5.PRODUCT IDENTIFICATION

XX XXXX - XXX X X

① ② ③ ④ ⑤

①、Coilmx Series Name ②、Dimensions ③、 Inductance

④、 Tolerance: M±20%, N±30%. ⑤、 Material

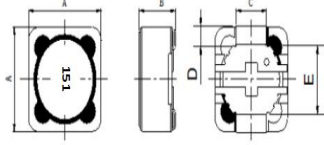


- 7.APPLICATION**
- (1)Low profile,high current power supplies.
 - (2)Battery powered devices.
 - (3)DC/DC converters in distributed power systems.
 - (5)DC/DC converters for field programmable gate array.

- 8.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.

9.RECOMMENDED PCB LAYOUT

	H	
	S	
	M	

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SORT	ITEM	A	B	C			
PRODUCT & DIMENSION	SPEC	12.5MAX	8.0MAX	4.9±0.2			
	1	12.25	7.51	4.92			
	2	12.21	7.56	4.93			
	3	12.20	7.59	4.91			
	4	12.24	7.55	4.92			
	5	12.21	7.50	4.92			
	X	12.22	7.54	4.92			
	R	0.05	0.09	0.02			
ELECTRICAL & REQUIREMENTS	ITEM	L(uH)	DCR (mΩ)	I sat(A)	DC BIAS	SHAPE:	
	SPEC	150±20%	240MAX	1.8A TYP L0A* 70%			
	1	141.50	215.60	132.50	-6.4%		
	2	142.30	215.40	134.20	-5.7%		
	3	139.20	214.60	132.80	-4.6%		
	4	141.60	216.30	134.20	-5.2%		
	5	142.60	215.30	131.80	-7.6%		
	X	141.44	215.44	133.10	-5.9%		
	R	3.40	1.70	2.40	3.0%		

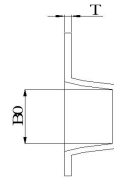
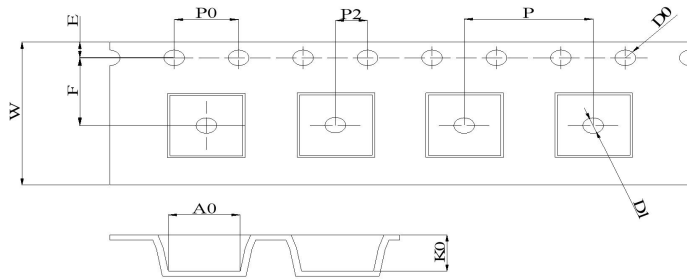
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项目Item	规格与需求 Specification and Requirement	测试方法Test Method			
可焊性 Solder ability test	沾锡面积不得小于95%上锡面 Terminals area must have 95% min solder coverage	上锡升温曲线Solder heat proof: (1) 预热: 160±10℃持续90s Preheating: 160±10℃ for 90 seconds (2) 恒温时段: 245±5℃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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10、包装 Packaging

10.1、尺寸 Dimensions

10.1.1 包装料带尺寸 Tape packaging dimensions

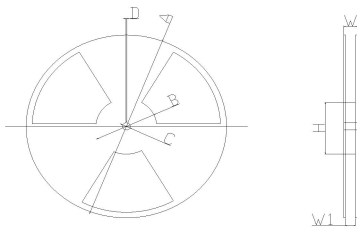


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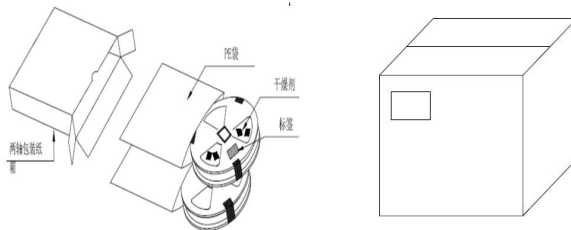
W	A0	B0	K0	P	F	E	D0	P0	T
24.00 ±0.30	10.6 ±0.10	10.7 ±0.10	4.1 ±0.10	16 ±0.10	11.5 ±0.1	1.75 ±0.10	1.50 ±0.10	4.0 ±0.10	0.35 ±0.05

10.1.2 卷轴尺寸 Reel dimensions



项目	尺寸(mm)
A	330.0 ± 2.0
B	100.0 ± 1.0
C	13.0 ± 1.0
D	1.9 ± 0.4
W	17.5max
W1	12.5max

10.1.3 外箱尺寸 Carton dimensions



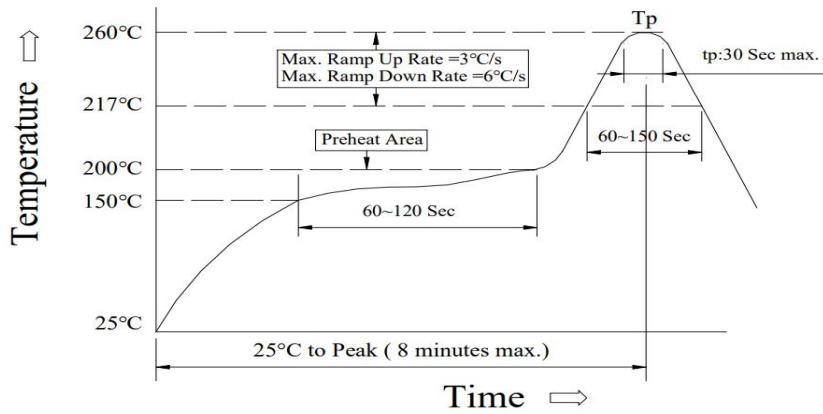
项目	数量 (PCS)
1卷轴	500
1内箱	1000
1外箱	5000

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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.