



**SPECIFICATION FOR APPROVAL**

产品规格承认书

**SMD POWER INDUCTOR**

功率电感

CUSTOMER.

\_\_\_\_\_

MODEL NO.

**MSA43-6R8M**

\_\_\_\_\_

CUSTOMER'S PART NO.

\_\_\_\_\_

LILE NO.

\_\_\_\_\_

DATE.

**2019.4.26**

\_\_\_\_\_

REVISION.

**A/0**

\_\_\_\_\_

<b>CUSTOMER APPROVE</b>		
DATE:		
<b>DRAWING</b>		
<b>DRAWN BY</b>	<b>CHECK BY</b>	<b>APPROVAL BY</b>
DATE:		



IATF16949 / ISO9001 / ISO14000

**深圳市迈翔科技有限公司**

**SHENZHEN MOTTO TECHNOLOGY Co., Ltd**

香港瑞德科技有限公司 黄冈市迈翔电子有限公司

Motto Technology park, niu e ling village no#214 xintian, nghua Town,

Guanlan Street, Longhua District, Shenzhen

TEL: +86 0755-8948751~2 89487610 Fax: +86 0755-61624574

[Http://www.coilmx.com](http://www.coilmx.com) E-mail: [sales@mottotech.com](mailto:sales@mottotech.com)



CUSTOMER		MODEL NO.	MSA43-6R8M	REVISION	A/0
FILE NO.		PART NO.		DATE	2019.4.26

<p><b>1.PRODUCT DIMENSION</b></p>	UNIT:mm	
	A	4.5±0.3
	B	4.0±0.3
	C	3.2±0.3

<b>2.ELECTRICAL REQUIREMENTS</b>			
PARAMETER	SPECIFICATION	CONDITION	TEST INSTRUMENTS
L( uH)	6.8±20%	100KHz/1.0V	MICROTEST 6377
DCR(mΩ)	82MAX	At 25℃	TH2512A
I sat(A)	2A TYP 30%	100KHz/1.0V	MICROTEST 6377+6220

**3.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 10%Typ

(4). Operating temperature range: -55℃~+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

**4.SPECIAL REQUEST**

(1)Lettering 6R8 on top of the body.

CUSTOMER		MODEL NO.	<b>MSA43-6R8M</b>	REVISION	<b>A/0</b>
FILE NO.		PART NO.		DATE	<b>2019.4.26</b>

**5.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.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	

CUSTOMER		MODEL NO.			MSA43-6R8M		REVISION		A/0	
FILE NO.		PART NO.					DATE		2019.4.26	
SORT		ITEM	A	B	C					
<b>PRODUCT &amp; DIMENSION</b>	<b>SPEC</b>	4.5±0.3	4.0±0.3	3.2±0.3						
	1	4.49	4.03	3.26						
	2	4.52	4.05	3.24						
	3	4.50	4.05	3.25						
	4	4.49	4.03	3.26						
	5	4.51	4.06	3.24						
	X	4.50	4.04	3.25						
	R	0.03	0.03	0.02						
<b>ELECTRICAL &amp; REQUIREMENTS</b>	<b>ITEM</b>	<b>L(uH)</b>	<b>DCR (mΩ)</b>	<b>I sat(A)</b>			<b>SHAPE:</b>			
	<b>SPEC</b>	6.8±20%	82MAX	2A TYP 30%						
	1	6.24	68.00	5.49						
	2	6.23	67.00	5.48						
	3	6.25	68.00	5.49						
	4	6.24	68.00	5.48						
	5	6.26	68.00	5.48						
	X	6.24	67.80	5.48						
	R	0.03	1.00	0.01						

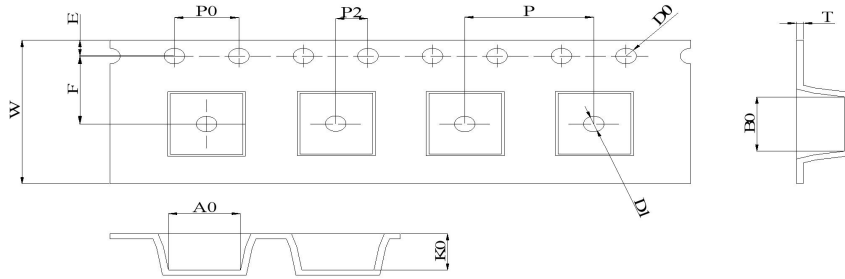
CUSTOMER		MODEL NO.	MSA43-6R8M	REVISION	A/0
FILE NO.		PART NO.		DATE	2019.4.26
3					
项目Item	规格与需求 Specification and Requirement	测试方法Test Method			
可焊性 Solder ability test	沾锡面积不得小于95%上锡面 Terminals area must have 95% min solder coverage	上锡升温曲线Solder heat proof: (1) 预热: 160±10℃持续90s Preheating: 160±10℃ 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			

CUSTOMER		MODEL NO.	MSA43-6R8M	REVISION	A/0
FILE NO.		PART NO.		DATE	2019.4.26

12、包装 Packaging

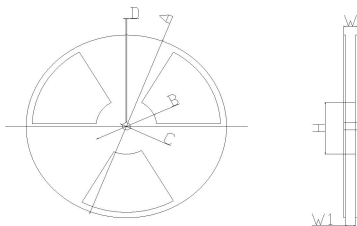
12.1、尺寸 Dimensions

12.1.1 包装料带尺寸 Tape packaging dimensions



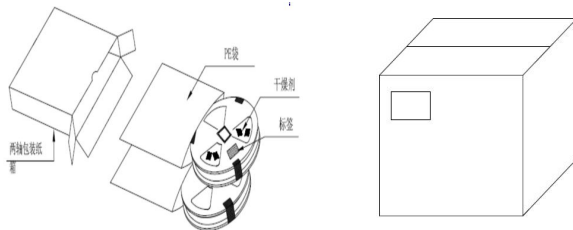
W	A0	B0	K0	P	F	E	D0	P0	T
12.00 ±0.30	5.4 ±0.10	6.0 ±0.10	4.8 ±0.10	8.0 ±0.10	5.5 ±0.1	1.75 ±0.10	1.50 ±0.10	4.0 ±0.10	0.35 ±0.05

12.1.2 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

12.1.3 外箱尺寸 Carton dimensions



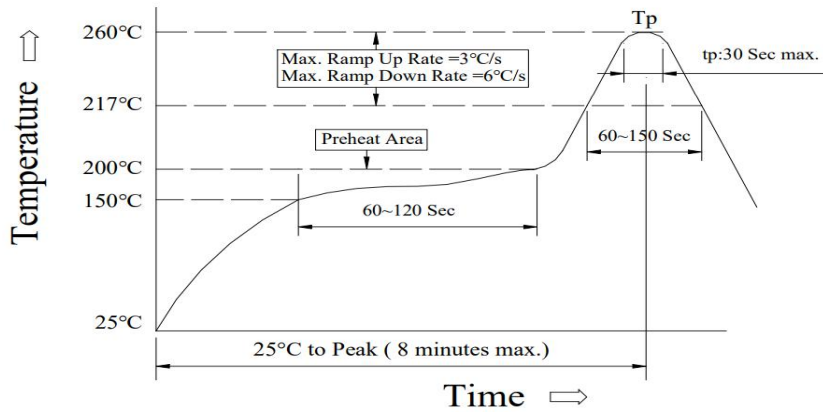
项目	数量 (PCS)
1卷轴	2000
1内箱	8000
1外箱	24000

CUSTOMER		MODEL NO.	MSA43-6R8M	REVISION	A/0
FILE NO.		PART NO.		DATE	2019.4.26

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.



## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Fixed Inductors](#) category:*

*Click to view products by [COILMX](#) manufacturer:*

Other Similar products are found below :

[MLZ1608M6R8WTD25](#) [MLZ1608N6R8LT000](#) [MLZ1608N3R3LTD25](#) [MLZ1608N3R3LT000](#) [MLZ1608N150LT000](#)  
[MLZ1608M150WTD25](#) [MLZ1608M3R3WTD25](#) [MLZ1608M3R3WT000](#) [MLZ1608M150WT000](#) [MLZ1608A1R5WT000](#)  
[MLZ1608N1R5LT000](#) [B82432C1333K000](#) [PCMB053T-1R0MS](#) [PCMB053T-1R5MS](#) [PCMB104T-1R5MS](#) [CR32NP-100KC](#) [CR32NP-151KC](#) [CR32NP-180KC](#) [CR32NP-181KC](#) [CR32NP-1R5MC](#) [CR32NP-390KC](#) [CR32NP-3R9MC](#) [CR32NP-680KC](#) [CR32NP-820KC](#)  
[CR32NP-8R2MC](#) [CR43NP-390KC](#) [CR43NP-560KC](#) [CR43NP-680KC](#) [CR54NP-181KC](#) [CR54NP-470LC](#) [CR54NP-820KC](#) [CR54NP-8R5MC](#)  
[MGDQ4-00004-P](#) [MGDU1-00016-P](#) [MHL1ECTTP18NJ](#) [MHL1JCTTD12NJ](#) [PE-51506NL](#) [PE-53601NL](#) [PE-53630NL](#) [PE-53824SNLT](#) [PE-62892NL](#) [PE-92100NL](#) [PG0434.801NLT](#) [PG0936.113NLT](#) [PM06-2N7](#) [PM06-39NJ](#) [HC2LP-R47-R](#) [HC2-R47-R](#) [HC3-2R2-R](#) [HC8-1R2-R](#)