

*Zhejiang JNCOIL  
Technology  
CO., Ltd*

*JNCOIL Inductor Catalog*



*Molded Power  
Inductor  
Models and  
Specifications*

浙江富尔科技有限公司

网址: [www.jncoil.cn](http://www.jncoil.cn)

# PS4020HC-PS6060HC SMD Type Ultra High Current Shielded Power Inductors

## 产品说明: Product Description

1. Coreless shielded inductor.
2. Compact design.
3. High current, low DCR, high efficiency.
4. Very low acoustic noise and very low leak
5. High reliability.



Dimensions (mm)	最大长度 Amax	最大宽度 Bmax	最大高度 Cmax	锡膏最大高度 Dmax
F-XAL4020HC	4.3	4.3	2.1	1.6
F-XAL4030HC	4.3	4.3	3.1	1.6
F-XAL4040HC	4.3	4.3	4.1	1.6
F-XAL5020HC	5.5	5.5	2	2.31
F-XAL5030HC	5.5	5.5	3.1	2.31
F-XAL5050HC	5.5	5.5	5.1	2.31
F-XAL6020HC	6.56	6.58	2.1	2.79
F-XAL6030HC	6.56	6.58	3.1	2.79
F-XAL6060HC	6.56	6.58	6.1	2.79

Part number	Inductance 电感值(L)	Percent 误差范围	DCR max 直流电阻	SRF typ 自谐振频率	Isat(A) 饱和电流	Irms(A) 均方根电流
F-XAL4020HC-221M	0.22 @ 100KHz	20	6.4	191	18.7	16.8
F-XAL4020HC-401M	0.4 @ 100KHz	20	8.3	145	12.5	14
F-XAL4020HC-601M	0.6 @ 100KHz	20	10.45	106	10.4	11.7
F-XAL4020HC-102M	1.0 @ 100KHz	20	14.6	79	8.7	9.6
F-XAL4020HC-122M	1.2 @ 100KHz	20	19.5	69	7.9	9
F-XAL4020HC-152M	1.5 @ 100KHz	20	23.6	64	7.1	7.5
F-XAL4020HC-222M	2.2 @ 100KHz	20	38.7	52	5.6	5.5
F-XAL4030HC-332M	3.3 @ 100KHz	20	28.6	43	5.5	6.6
F-XAL4030HC-472M	4.7 @ 100KHz	20	44.1	36	4.5	5.1
F-XAL4030HC-682M	6.8 @ 100KHz	20	74.1	29	3.6	3.9
F-XAL4040HC-822M	8.2 @ 100KHz	20	66.9	27	4	3.4
F-XAL4040HC-103M	10 @ 100KHz	20	92.4	24	3	3.1
F-XAL4040HC-153M	15 @ 100KHz	20	120	20	2.8	2.8
F-XAL5020HC-161M	0.16 @ 100KHz	20	5	205	24.2	18.8
F-XAL5020HC-331M	0.33 @ 100KHz	20	7.68	110	17.1	14.4
F-XAL5020HC-561M	0.56 @ 100KHz	20	9.54	80	14.1	13.9
F-XAL5020HC-801M	0.8 @ 100KHz	20	11.8	64	12	13
F-XAL5020HC-122M	1.2 @ 100KHz	20	20.5	50	9.5	9.4
F-XAL5030HC-161M	0.16 @ 100KHz	20	2.36	183	31	22.2
F-XAL5030HC-331M	0.33 @ 100KHz	20	3.52	108	26	19.2
F-XAL5030HC-601M	0.6 @ 100KHz	20	4.52	75	19.8	17.7
F-XAL5030HC-801M	0.8 @ 100KHz	20	5.65	63	18.5	13
F-XAL5030HC-102M	1.0 @ 100KHz	20	9.4	68	14	11.1
F-XAL5030HC-222M	2.2 @ 100KHz	20	14.5	38	9.2	9.7
F-XAL5030HC-332M	3.3 @ 100KHz	20	23.3	28	8.7	8.1
F-XAL5030HC-472M	4.7 @ 100KHz	20	40	23	6.7	5.9
F-XAL5050HC-562M	5.6 @ 100KHz	20	25.8	25	6.3	7.2
F-XAL5050HC-682M	6.8 @ 100KHz	20	29.45	21	6	6.4
F-XAL5050HC-822M	8.2 @ 100KHz	20	34.95	18	5.6	6.1
F-XAL5050HC-103M	10 @ 100KHz	20	45	15	4.9	4.9
F-XAL5050HC-153M	15 @ 100KHz	20	76.7	13	3.7	3.9
F-XAL5050HC-223M	22 @ 100KHz	20	99.65	11	3.6	3.4
F-XAL6020HC-121M	0.12 @ 100KHz	20	1.85	165	45	27
F-XAL6020HC-161M	0.16 @ 100KHz	20	2.7	152	41	26
F-XAL6020HC-271M	0.27 @ 100KHz	20	3.85	97	29.5	25

Part number	Inductance 电感值(L)	Percent 误差范围	DCR max 直流电阻	SRF typ 自谐振频率	Isat(A) 饱和电流	Irms(A) 均方根电流
F-XAL6020HC-451M	0.45 @ 100KHz	20	5.05	73	24.5	22
F-XAL6020HC-601M	0.60 @ 100KHz	20	7.1	66	20.5	18.5
F-XAL6020HC-801M	0.80 @ 100KHz	20	11.1	56	19.1	15.2
F-XAL6020HC-112M	1.10 @ 100KHz	20	13.1	50	17.1	12
F-XAL6030HC-181M	0.18 @ 100KHz	20	1.75	141	39	32
F-XAL6030HC-331M	0.33 @ 100KHz	20	2.53	89	30	25
F-XAL6030HC-561M	0.56 @ 100KHz	20	3.31	61	29	22
F-XAL6030HC-102M	1.0 @ 100KHz	20	6.18	50	23	18
F-XAL6030HC-122M	1.2 @ 100KHz	20	7.5	43	22	16
F-XAL6030HC-182M	1.8 @ 100KHz	20	10.52	34	18.2	14
F-XAL6030HC-222M	2.2 @ 100KHz	20	13.97	30	15.9	10
F-XAL6030HC-332M	3.3 @ 100KHz	20	20.81	26	12.2	8
F-XAL6060HC-472M	4.7 @ 100KHz	20	14.4	21	10.5	11
F-XAL6060HC-562M	5.6 @ 100KHz	20	15.9	20	9.9	10
F-XAL6060HC-682M	6.8 @ 100KHz	20	20.8	18	9.2	9
F-XAL6060HC-822M	8.2 @ 100KHz	20	26.4	16	8.4	8
F-XAL6060HC-103M	10 @ 100KHz	20	29.82	14	7.6	7
F-XAL6060HC-153M	15 @ 100KHz	20	43.75	11	5.8	6
F-XAL6060HC-223M	22 @ 100KHz	20	60.63	9	5.6	5

## PASSED MEASUREMENT / 通过如下测量

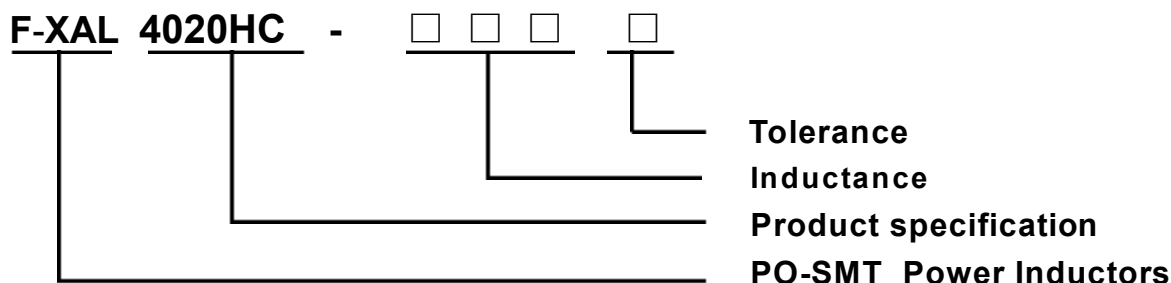
ITEM	Test condition	Test Result
Operating Temperature 操作温度	-40°C ~ +125°C	5Pcs Passed
Storage temperature 储存温度	-55°C ~ 125°C	5Pcs Passed
Rated Current 额定电流	Refer to standard electrical characteristics list 参考标准特性规格表	5Pcs Passed
Temperature Rise Test 温升测试	40°C max.(ΔI) 40度最大	5Pcs Passed
<b>Electrical Performance Test</b>		
Solder Heat Resistance 焊锡耐热	Appearance: No significant abnormality. Inductance change: Within ±20%. 外观: 无显著异常。 电感值: 变异率在初始值±20%以内。	Preheat: 150°C, 60sec. Solder: H63A Solder temperature: 250±5°C Flux for lead free: rosin Dip time: 10±0.5sec. 预热: 150°C, 60sec. 锡炉温度: 250±5°C 时间: 10±0.5sec 助焊剂: rosin.
Solderability Test 锡焊可焊性	More than 90% of the terminal electrode. Should be covered with solder. 锡电极之锡覆盖面积≥90%以上, 锡电极必须覆盖有锡。	Preheat: 125±25°C, 60sec. Solder: H63A Solder temperature: 230±5°C Flux for lead free: rosin Dip time: 4±1sec. 预热: 125±25°C, 60sec. 锡炉温度: 230±5°C 时间: 4±1sec. 助焊剂: rosin.
High Temperature Resistance Test 高温放置测试	Appearance: no damage. Inductance: within 20% of initial value. NO disconnection or short circuit. 外观: 不能破损, 电感值: 变异率在初始值20%以内, 电性无短路或断路。	Temperature: 85±5°C. Applied: concentrated current. Duration: 500 hrs.

# F-XAL4020HC系列一体电感元件

## SMT Power Inductors- F-XAL4020HC

产品型号

PRODUCT IDENTIFICATION



Tolerance:

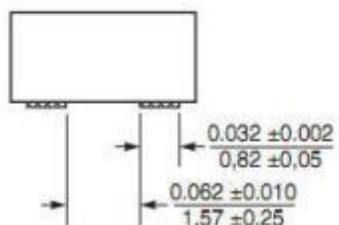
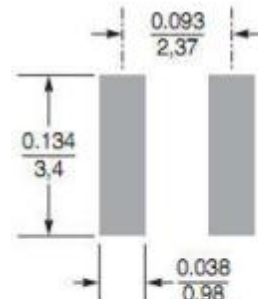
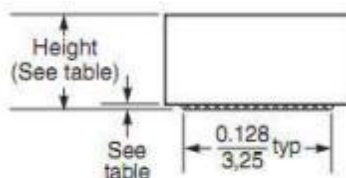
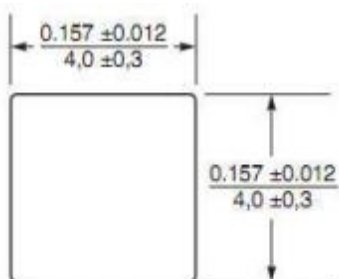
Code	Tolerance
102	1.0 $\mu$ H
103	10.0 $\mu$ H
104	100.0 $\mu$ H
105	1000.0 $\mu$ H
106	10000.0 $\mu$ H

Inductance:

Code	Tolerance
J	$\pm 5\%$
K	$\pm 10\%$
L	$\pm 15\%$
M	$\pm 20\%$
N	$\pm 30\%$

外观尺寸

SHAPE AND DIMENSIONS



Dash number	Terminal thickness (typ) (in / mm)	Maximum* height (in / mm)	Weight
-221	0.0039 / 0.10	0.083 / 2,1	0.17 - 0.18 g
-401	0.0039 / 0.10	0.083 / 2,1	0.17 - 0.18 g
-601	0.0039 / 0.10	0.083 / 2,1	0.17 - 0.18 g
-102	0.0039 / 0.10	0.083 / 2,1	0.17 - 0.18 g
-122	0.0039 / 0.10	0.083 / 2,1	0.17 - 0.18 g
-152	0.0031 / 0.08	0.083 / 2,1	0.17 - 0.18 g
-222	0.0024 / 0.06	0.083 / 2,1	0.17 - 0.18 g

Dimensions are in  $\frac{\text{inches}}{\text{mm}}$

## F-XAL4020HC系列一体电感元件

### SMT Power Inductors- F-XAL4020HC

规格特性

**SPECIFICATIONS**

Part number	Inductance ( $\mu$ H)	Percent tolerance	DCR max (MOhms)	SRF typ (MHz)	Isat(A) 30% drop	Irms(A) 40°C rise
F-XAL4020HC-221M	0.22 @ 100KHz	20	6.4	191	18.7	16.8
F-XAL4020HC-401M	0.4 @ 100KHz	20	8.3	145	12.5	14
F-XAL4020HC-601M	0.6 @ 100KHz	20	10.45	106	10.4	11.7
F-XAL4020HC-102M	1.0 @ 100KHz	20	14.6	79	8.7	9.6
F-XAL4020HC-122M	1.2 @ 100KHz	20	19.5	69	7.9	9
F-XAL4020HC-152M	1.5 @ 100KHz	20	23.6	64	7.1	7.5
F-XAL4020HC-222M	2.2 @ 100KHz	20	38.7	52	5.6	5.5

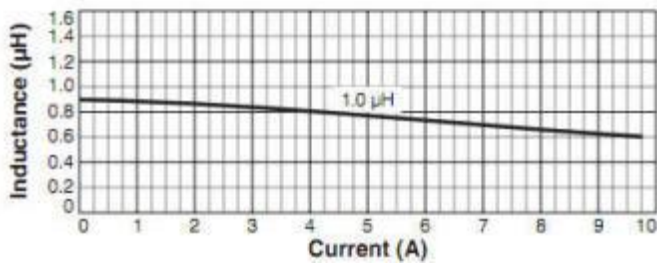
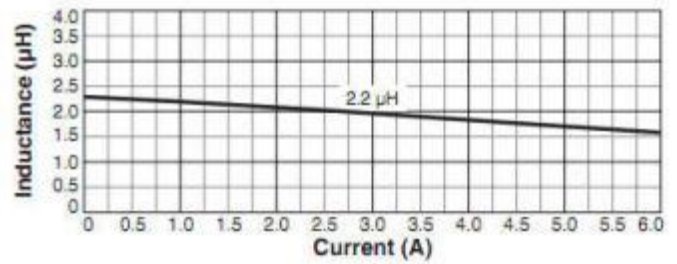
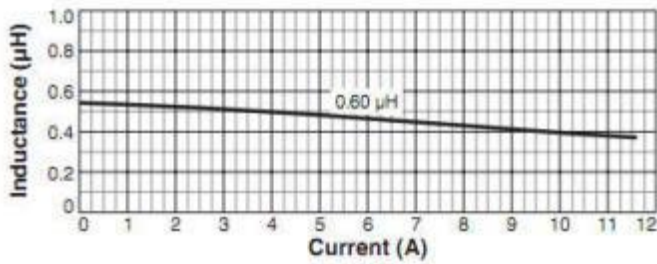
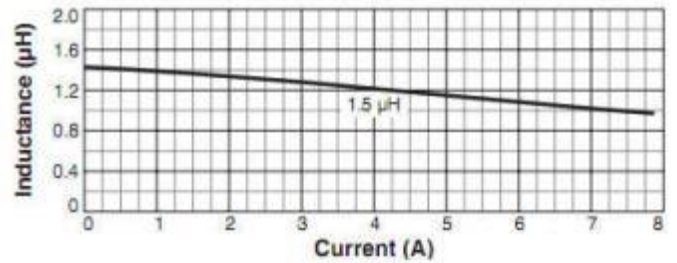
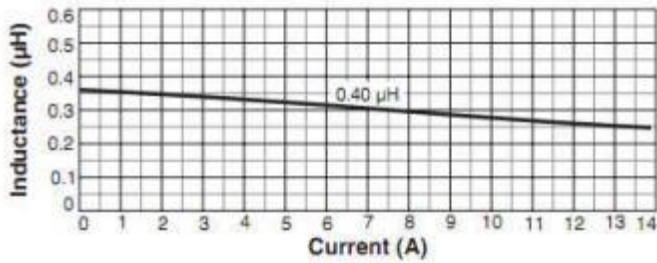
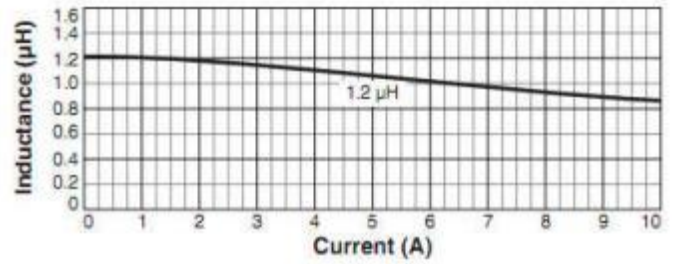
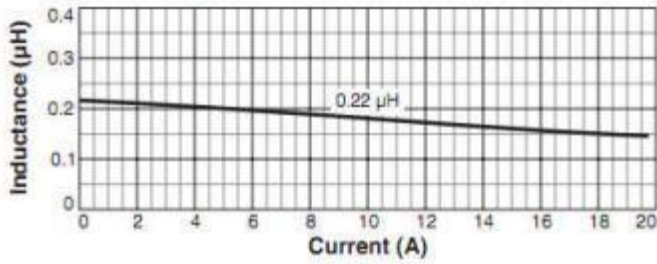
# F-XAL4020系列一体电感元件

## SMT Power Inductors- F-XAL4020HC

电气特性

TYPICAL ELECTRICAL CHARACTERISTICS

### L vs Current



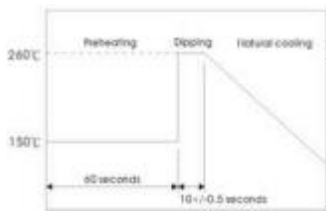
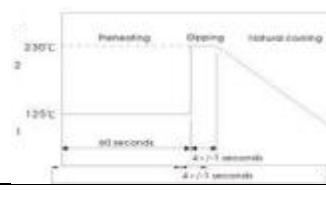
# F-XAL4020HC系列一体电感元件

## SMT Power Inductors- F-XAL4020HC

### 电气特性

### TYPICAL ELECTRICAL CHARACTERISTICS

#### PASSED MEASUREMENT / 通过如下测量

ITEM	Test condition	Test Result
Operating Temperature 操作温度	-40℃ ~ + 125℃	5Pcs Passed
Storage temperature 储存温度	-55℃ ~ 125℃	5Pcs Passed
Rated Current 额定电流	Refer to standard electrical characteristics list 参考标准特性规格表	5Pcs Passed
Temperature Rise Test 温升测试	40℃ max.(Δt) 40度最大	5Pcs Passed
<b>Electrical Performance Test</b>		
Solder Heat Resistance 耐焊锡热	Appearance: No significant abnormality. Inductance change: within ±20%. 外观: 无显著异常。 电感值: 变异性在初始值±20%以内。	Preheat: 150℃, 60sec. Solder: H63A Solder temperature: 260±5℃ Flux for lead free: rosin Dip time: 10±0.5sec. 预热: 150℃, 60sec. 锡炉温度: 260±5℃ . 时间: 10±0.5sec 助焊剂: rosin. 
Solderability Test 端面锡性	More than 90% of the terminal electrode. Should be covered with solder. 端子电极之锡覆盖面积达90%以上。	Preheat: 125±25℃, 60sec. Solder: H63A. Solder temperature: 230±5℃ Flux for lead free: rosin Dip time: 4±1sec. 预热: 125±25℃, 60sec. 锡炉温度: 230±5℃ 时间: 4±1sec. 助焊剂: rosin. 
High Temperature Resistance Test 高温放置测试	Appearance: no damage. Inductance: within ±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值: 变异值在初始值20%以内。 电性无短路或断线。	Temperature: 85±5℃ . Applied current: rated current. Duration: 500 hrs.

# F-XAL4020HC系列一体电感元件

## SMT Power Inductors- F-XAL4020HC

### 电气特性

### TYPICAL ELECTRICAL CHARACTERISTICS

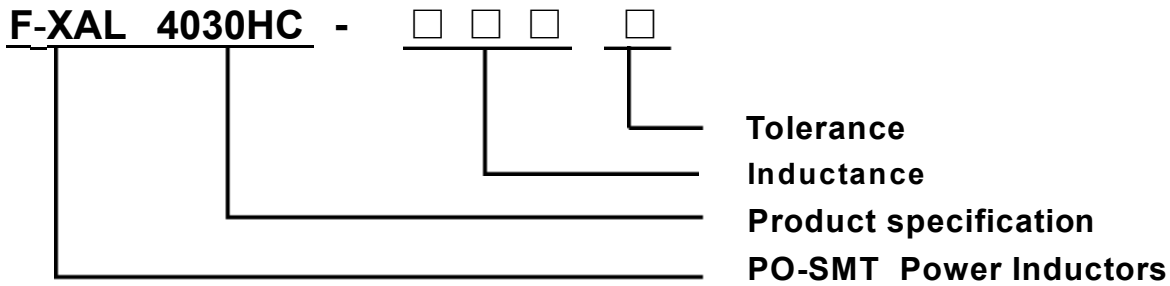
ITEM	Test condition	Test Result
Humidity Resistance Test 高温放置测试	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线。	Temperature:40±2℃ . Applied current:rated current. Duration:500 hrs. Humidity:90~95%.
Thermal shock 热冲击试验	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线。	Condition for 1 cycle Step 1:-25±2℃ ,30±3 min. Step 2:Room temperature within 15 min. Step 3:+85±5℃ ,30±3 min. Step 4: Room temperature within 15 min. Number of cycles 50
Humidity Resistance 高湿测试	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线	Humidity 90~95%RH. Temperature:40±5℃ . Applied current:rated current. Duration:500± 12hrs. Measured at room temperature after placing for 2 to 3hrs. 湿度： 90~95%RH。 温度： 40±5℃ . 须加电流： 额定电流。 放置时间： 500± 12hrs。 测试结束于室温放置2~3小时，始可测试电气特性。

# F-XAL4030HC系列一体电感元件

## SMT Power Inductors-F-XAL4030HC

产品型号

PRODUCT IDENTIFICATION



Tolerance:

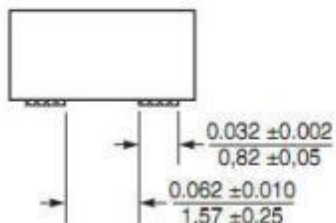
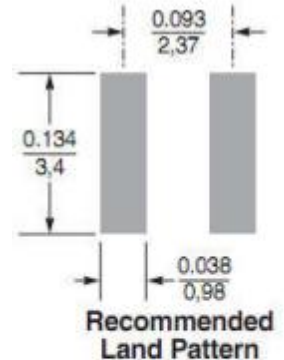
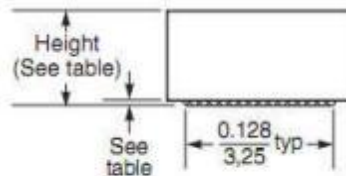
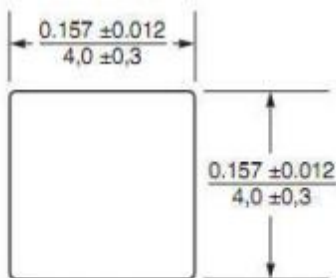
Code	Tolerance
102	1.0μ H
103	10.0μ H
104	100.0μ H
105	1000.0μ H
106	10000.0μ H

Inductance:

Code	Tolerance
J	±5%
K	± 10%
L	± 15%
M	±20%
N	±30%

外观尺寸

SHAPE AND DIMENSIONS



Dash number	Terminal thickness (typ) (in / mm)	Maximum* height (in / mm)	Weight
-332	0.0039 / 0.10	0.122 / 3.1	0.26 - 0.28 g
-472	0.0031 / 0.08	0.122 / 3.1	0.26 - 0.28 g
-682	0.0024 / 0.06	0.122 / 3.1	0.26 - 0.28 g

Dimensions are in  $\frac{\text{inches}}{\text{mm}}$



## F-XAL4030HC系列一体电感元件

### SMT Power Inductors-F-XAL4030HC

规格特性

**SPECIFICATIONS**

Part number	Inductance (uH)	Percent toleranc	DCR max (MOhms)	SRF typ (MHz)	Isat(A) 30%drop	Irms(A) 40°C rise
F-XAL4030HC-332M	3.3 @ 100KHz	20	28.6	43	5.5	6.6
F-XAL4030HC-472M	4.7 @ 100KHz	20	44.1	36	4.5	5.1
F-XAL4030HC-682M	6.8 @ 100KHz	20	74.1	29	3.6	3.9

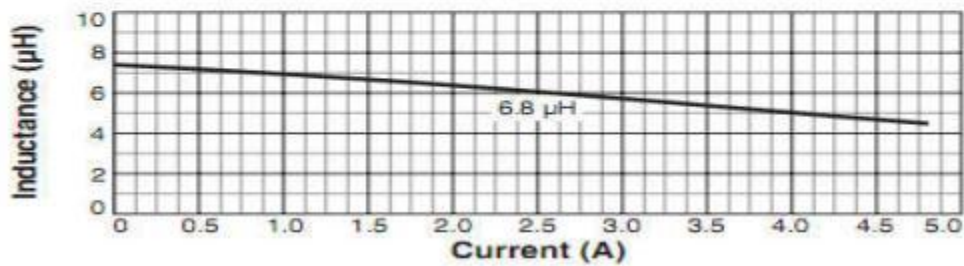
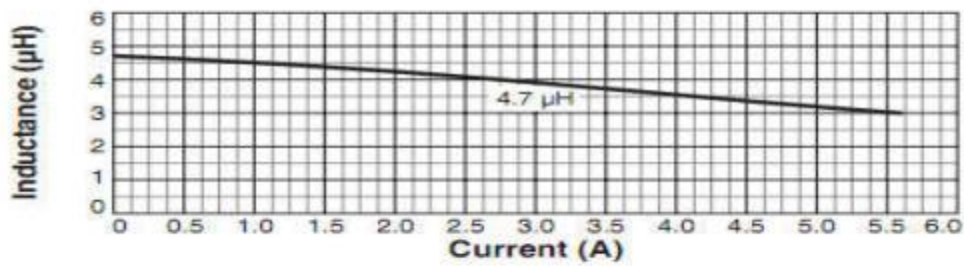
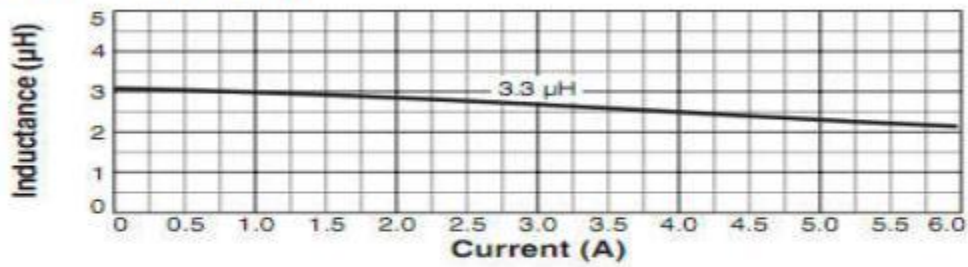
# F-XAL4030HC系列一体电感元件

## SMT Power Inductors-F-XAL4030HC

电气特性

TYPICAL ELECTRICAL CHARACTERISTICS

### L vs Current



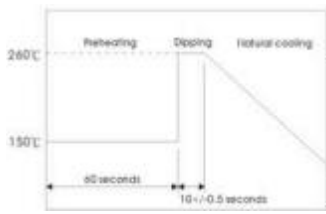
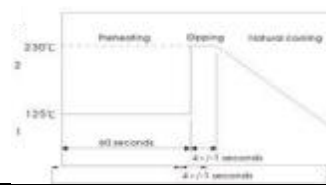
# F-XAL4030HC系列一体电感元件

## SMT Power Inductors-F-XAL4030HC

### 电气特性

### TYPICAL ELECTRICAL CHARACTERISTICS

#### PASSED MEASUREMENT / 通过如下测量

ITEM	Test condition	Test Result
Operating Temperature 操作温度	-40°C ~ + 125°C	5Pcs Passed
Storage temperature 储存温度	-55°C ~ 125°C	5Pcs Passed
Rated Current 额定电流	Refer to standard electrical characteristics list 参考标准特性规格表	5Pcs Passed
Temperature Rise Test 温升测试	40°C max.(Δt) 40度最大	5Pcs Passed
<b>Electrical Performance Test</b>		
Solder Heat Resistance 耐焊锡热	Appearance: No significant abnormality. Inductance change: within ±20%. 外观: 无显著异常。 电感值: 变异性在初始值±20%以内。	Preheat: 150°C, 60sec. Solder: H63A Solder temperature: 260±5°C Flux for lead free: rosin Dip time: 10±0.5sec. 预热: 150°C, 60sec. 锡炉温度: 260±5°C . 时间: 10±0.5sec 助焊剂: rosin. 
Solderability Test 端面锡性	More than 90% of the terminal electrode. Should be covered with solder. 端子电极之锡覆盖面积达90%以上。	Preheat: 125±25°C, 60sec. Solder: H63A. Solder temperature: 230±5°C Flux for lead free: rosin Dip time: 4±1sec. 预热: 125±25°C, 60sec. 锡炉温度: 230±5°C 时间: 4±1sec. 助焊剂: rosin. 
High Temperature Resistance Test 高温放置测试	Appearance: no damage. Inductance: within ±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值: 变异值在初始值20%以内。 电性无短路或断线。	Temperature: 85±5°C . Applied current: rated current. Duration: 500 hrs.

# F-XAL4030HC系列一体电感元件

## SMT Power Inductors-F-XAL4030HC

### 电气特性

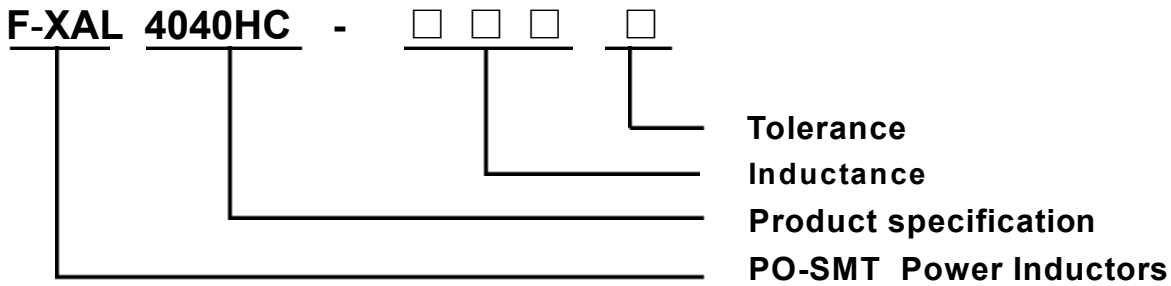
### TYPICAL ELECTRICAL CHARACTERISTICS

ITEM	Test condition	Test Result
Humidity Resistance Test 高温放置测试	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线。	Temperature:40±2℃ . Applied current:rated current. Duration:500 hrs. Humidity:90~95%.
Thermal shock 热冲击试验	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线。	Condition for 1 cycle Step 1:-25±2℃ ,30±3 min. Step 2:Room temperature within 15 min. Step 3:+85±5℃ ,30±3 min. Step 4: Room temperature within 15 min. Number of cycles 50
Humidity Resistance 高湿测试	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线	Humidity 90~95%RH. Temperature:40±5℃ . Applied current:rated current. Duration:500± 12hrs. Measured at room temperature after placing for 2 to 3hrs. 湿度： 90~95%RH。 温度： 40±5℃ . 须加电流： 额定电流。 放置时间： 500± 12hrs。 测试结束于室温放置2~3小时，始可测试电气特性。

# F-XAL4040HC系列一体电感元件

## SMT Power Inductors- F-XAL4040HC

### 产品型号 PRODUCT IDENTIFICATION



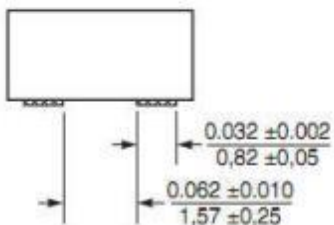
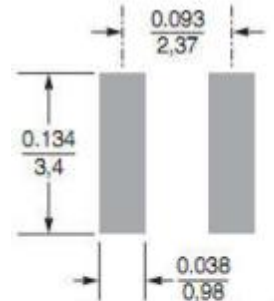
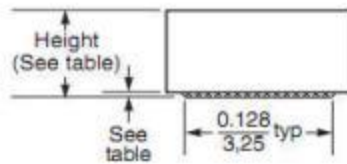
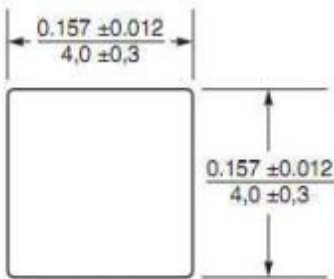
**Tolerance:**

Code	Tolerance
102	1.0μ H
103	10.0μ H
104	100.0μ H
105	1000.0μ H
106	10000.0μ H

**Inductance:**

Code	Tolerance
J	±5%
K	± 10%
L	± 15%
M	±20%
N	±30%

### 外观尺寸 SHAPE AND DIMENSIONS



Dash number	Terminal thickness (typ) (in / mm)	Maximum* height (in / mm)	Weight
-822	0.0031 / 0.08	0.161 / 4.1	0.35 - 0.37 g
-103	0.0024 / 0.06	0.161 / 4.1	0.35 - 0.37 g
-153	0.0024 / 0.06	0.161 / 4.1	0.35 - 0.37 g

Dimensions are in  $\frac{\text{inches}}{\text{mm}}$

## F-XAL4040HC系列一体电感元件

### SMT Power Inductors- F-XAL4040HC

规格特性

**SPECIFICATIONS**

Part number	Inductance (uH)	Percent toleranc	DCR max (MOhms)	SRF typ (MHz)	Isat(A) 30%drop	Irms(A) 40°C rise
F-XAL4040HC-822M	8.2 @100KHz	20	66.9	27	4	3.4
F-XAL4040HC-103M	10 @100KHz	20	92.4	24	3	3.1
F-XAL4040HC-153M	15 @ 100KHz	20	120	20	2.8	2.8
F-XAL4040HC-407M	0.37@ 100KHz	20	4.2	140	12.2	13.5
F-XAL4040HC-608M	0.57@ 100KHz	20	6	73	19.1	17.3
F-XAL4040HC-101M	1@ 100KHz	20	14.6	79	8.7	9.6
F-XAL4040HC-102M	1.2@ 100KHz	20	14.3	75	8.5	9.2
F-XAL4040HC-332M	3.6@ 100KHz	20	21	39	5.2	6.3
F-XAL4040HC-303M	3.3@ 100KHz	20	16.8	41	5.5	6.6

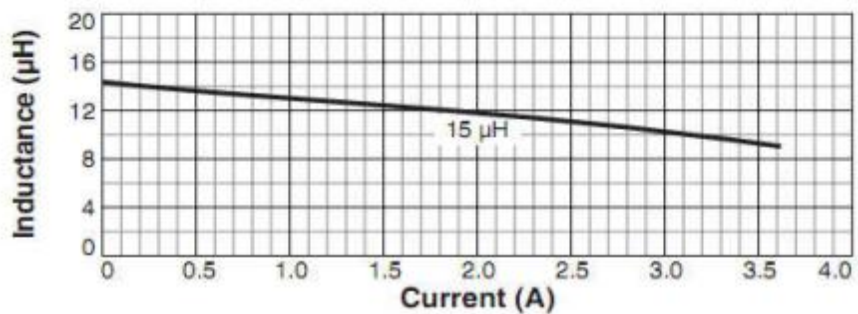
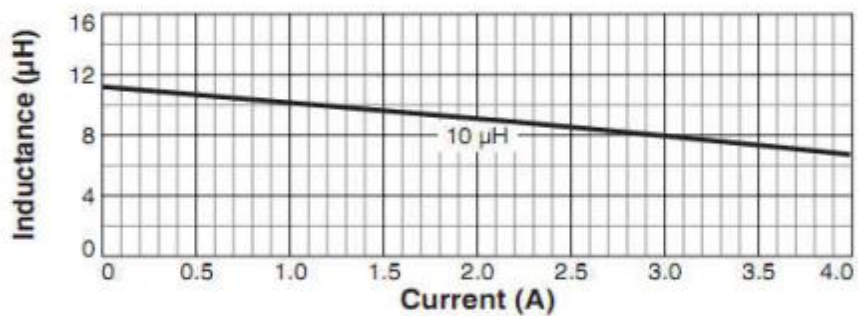
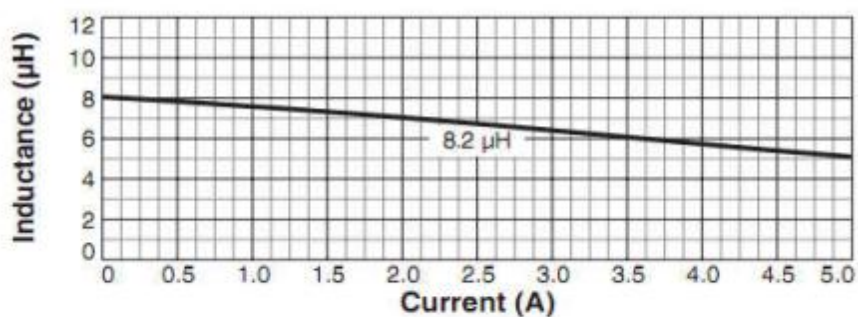
# F-XAL4040HC系列一体电感元件

## SMT Power Inductors- F-XAL-4040HC

电气特性

TYPICAL ELECTRICAL CHARACTERISTICS

### L vs Current



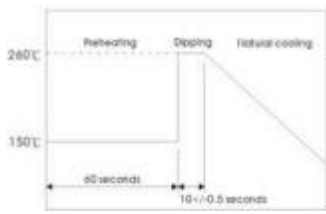
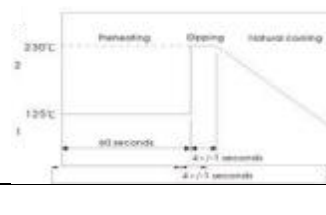
# F-XAL4040HC系列一体电感元件

## SMT Power Inductors- F-XAL4040HC

### 电气特性

### TYPICAL ELECTRICAL CHARACTERISTICS

#### PASSED MEASUREMENT / 通过如下测量

ITEM	Test condition	Test Result
Operating Temperature 操作温度	-40℃ ~ + 125℃	5Pcs Passed
Storage temperature 储存温度	-55℃ ~ 125℃	5Pcs Passed
Rated Current 额定电流	Refer to standard electrical characteristics list 参考标准特性规格表	5Pcs Passed
Temperature Rise Test 温升测试	40℃ max.(Δt) 40度最大	5Pcs Passed
<b>Electrical Performance Test</b>		
Solder Heat Resistance 耐焊锡热	Appearance: No significant abnormality. Inductance change: within ±20%. 外观: 无显著异常。 电感值: 变异性在初始值±20%以内。	Preheat: 150℃, 60sec. Solder: H63A Solder temperature: 260±5℃ Flux for lead free: rosin Dip time: 10±0.5sec. 预热: 150℃, 60sec. 锡炉温度: 260±5℃ . 时间: 10±0.5sec 助焊剂: rosin. 
Solderability Test 端面锡性	More than 90% of the terminal electrode. Should be covered with solder. 端子电极之锡覆盖面积达90%以上。	Preheat: 125±25℃, 60sec. Solder: H63A. Solder temperature: 230±5℃ Flux for lead free: rosin Dip time: 4±1sec. 预热: 125±25℃, 60sec. 锡炉温度: 230±5℃ 时间: 4±1sec. 助焊剂: rosin. 
High Temperature Resistance Test 高温放置测试	Appearance: no damage. Inductance: within ±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值: 变异值在初始值20%以内。 电性无短路或断线。	Temperature: 85±5℃ . Applied current: rated current. Duration: 500 hrs.



# F-XAL4040HC系列一体电感元件

## SMT Power Inductors- F-XAL4040HC

### 电气特性

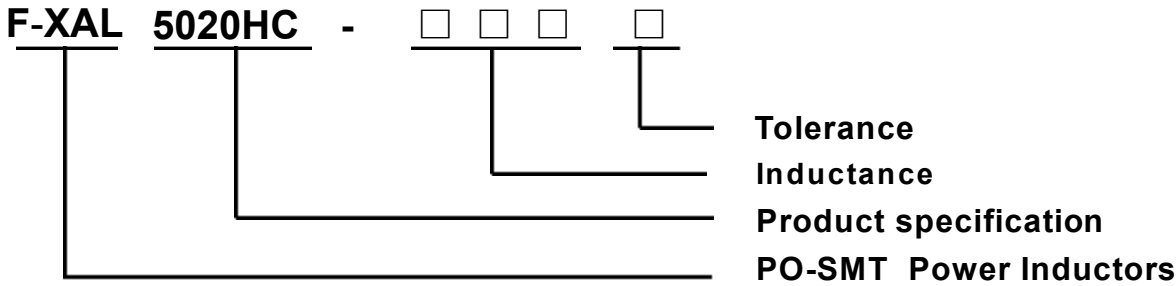
### TYPICAL ELECTRICAL CHARACTERISTICS

ITEM	Test condition	Test Result
Humidity Resistance Test 高温放置测试	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线。	Temperature:40±2℃ . Applied current:rated current. Duration:500 hrs. Humidity:90~95%.
Thermal shock 热冲击试验	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线。	Condition for 1 cycle Step 1:-25±2℃ ,30±3 min. Step 2:Room temperature within 15 min. Step 3:+85±5℃ ,30±3 min. Step 4: Room temperature within 15 min. Number of cycles 50
Humidity Resistance 高湿测试	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线	Humidity 90~95%RH. Temperature:40±5℃ . Applied current:rated current. Duration:500± 12hrs. Measured at room temperature after placing for 2 to 3hrs. 湿度： 90~95%RH。 温度： 40±5℃ . 须加电流： 额定电流。 放置时间： 500± 12hrs。 测试结束于室温放置2~3小时，始可测试电气特性。

# F-XAL5020HC系列一体电感元件

## SMT Power Inductors- F-XAL5020HC

### 产品型号 PRODUCT IDENTIFICATION



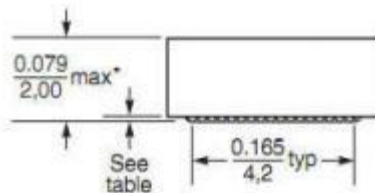
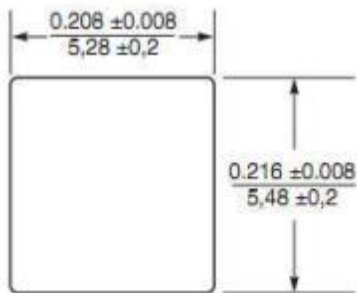
**Tolerance:**

Code	Tolerance
102	1.0μ H
103	10.0μ H
104	100.0μ H
105	1000.0μ H
106	10000.0μ H

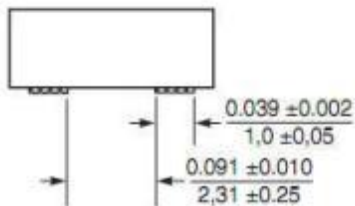
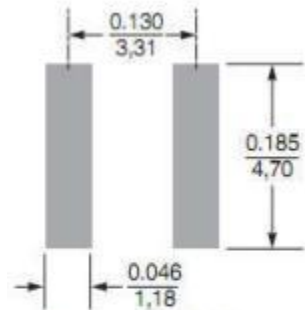
**Inductance:**

Code	Tolerance
J	±5%
K	± 10%
L	± 15%
M	±20%
N	±30%

### 外观尺寸 SHAPE AND DIMENSIONS



Dash number	Terminal thickness (typ) (in / mm)
-161	0.0039 / 0.10
-331	0.0039 / 0.10
-561	0.0039 / 0.10
-801	0.0039 / 0.10
-122	0.0028 / 0.07



Dimensions are in  $\frac{\text{inches}}{\text{mm}}$

## F-XAL5020HC系列一体电感元件

### SMT Power Inductors- F-XAL5020HC

规格特性

SPECIFICATIONS

Part number	Inductance ( $\mu$ H)	Percent toleranc	DCR max (MOhms)	SRF typ (MHz)	Isat(A) 30%drop	Irms(A) 40°C rise
F-XAL5020HC-161M	0.16 @ 100KHz	20	5	205	24.2	18.8
F-XAL5020HC-331M	0.33 @ 100KHz	20	7.68	110	17.1	14.4
F-XAL5020HC-561M	0.56 @ 100KHz	20	9.54	80	14.1	13.9
F-XAL5020HC-801M	0.8 @ 100KHz	20	11.8	64	12	13
F-XAL5020HC-122M	1.2 @ 100KHz	20	20.5	50	9.5	9.4

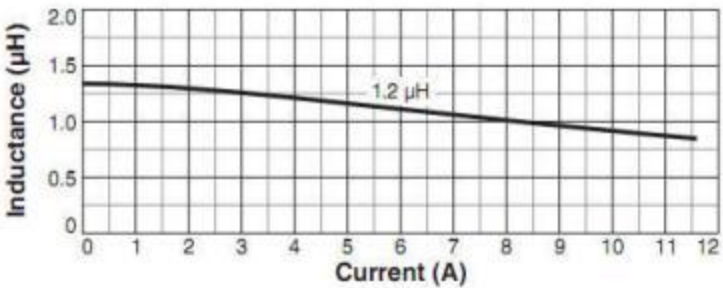
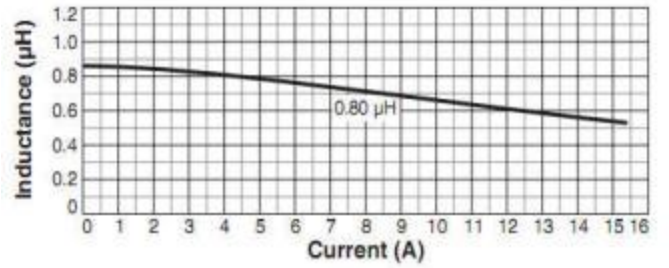
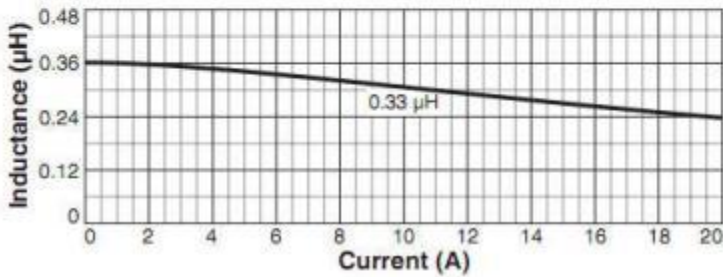
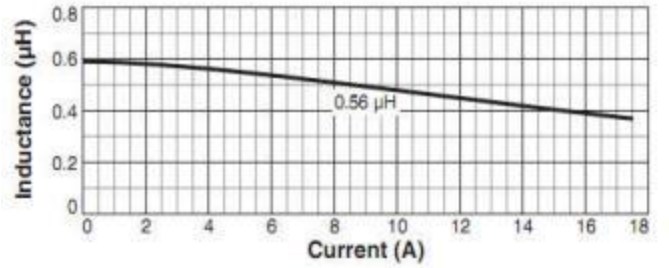
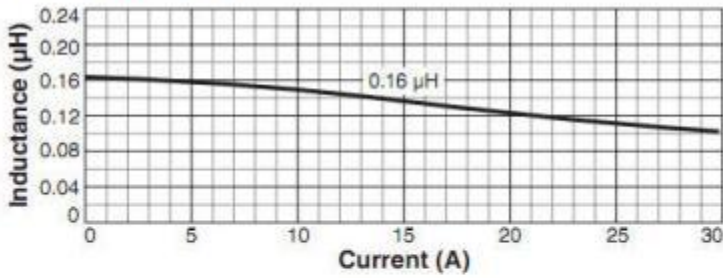
# F-XAL5020HC系列一体电感元件

## SMT Power Inductors- F-XAL5020HC

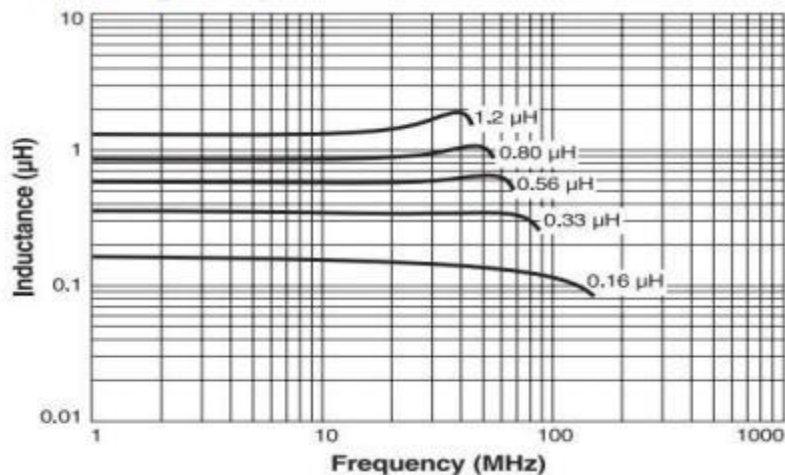
电气特性

TYPICAL ELECTRICAL CHARACTERISTICS

### L vs Current



### L vs Frequency



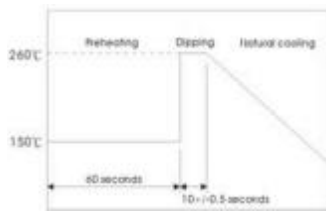
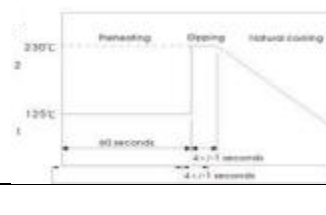
# F-XAL5020HC系列一体电感元件

## SMT Power Inductors- F-XAL5020HC

### 电气特性

### TYPICAL ELECTRICAL CHARACTERISTICS

#### PASSED MEASUREMENT / 通过如下测量

ITEM	Test condition	Test Result
Operating Temperature 操作温度	-40℃ ~ + 125℃	5Pcs Passed
Storage temperature 储存温度	-55℃ ~ 125℃	5Pcs Passed
Rated Current 额定电流	Refer to standard electrical characteristics list 参考标准特性规格表	5Pcs Passed
Temperature Rise Test 温升测试	40℃ max.(Δt) 40度最大	5Pcs Passed
<b>Electrical Performance Test</b>		
Solder Heat Resistance 耐焊锡热	Appearance: No significant abnormality. Inductance change: within ±20%. 外观: 无显著异常。 电感值: 变异性在初始值±20%以内。	Preheat: 150℃, 60sec. Solder: H63A Solder temperature: 260±5℃ Flux for lead free: rosin Dip time: 10±0.5sec. 预热: 150℃, 60sec. 锡炉温度: 260±5℃ . 时间: 10±0.5sec 助焊剂: rosin. 
Solderability Test 端面锡性	More than 90% of the terminal electrode. Should be covered with solder. 端子电极之锡覆盖面积达90%以上。	Preheat: 125±25℃, 60sec. Solder: H63A. Solder temperature: 230±5℃ Flux for lead free: rosin Dip time: 4±1sec. 预热: 125±25℃, 60sec. 锡炉温度: 230±5℃ 时间: 4±1sec. 助焊剂: rosin. 
High Temperature Resistance Test 高温放置测试	Appearance: no damage. Inductance: within ±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值: 变异值在初始值20%以内。 电性无短路或断线。	Temperature: 85±5℃ . Applied current: rated current. Duration: 500 hrs.

# F-XAL5020HC系列一体电感元件

## SMT Power Inductors- F-XAL5020HC

### 电气特性

### TYPICAL ELECTRICAL CHARACTERISTICS

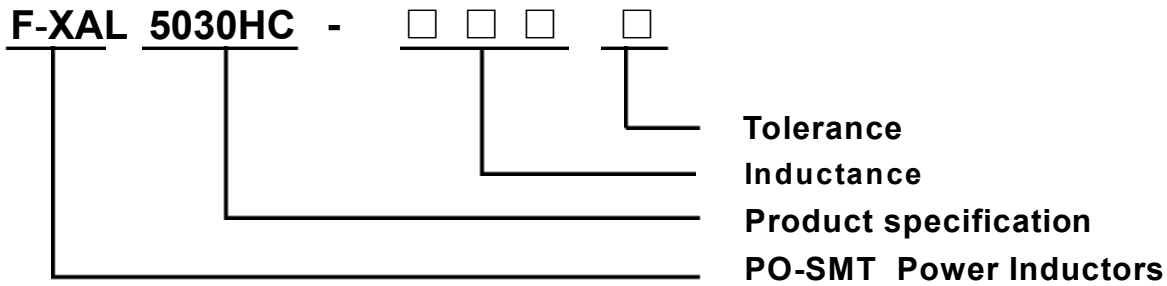
ITEM	Test condition	Test Result
Humidity Resistance Test 高温放置测试	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线。	Temperature:40±2℃ . Applied current:rated current. Duration:500 hrs. Humidity:90~95%.
Thermal shock 热冲击试验	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线。	Condition for 1 cycle Step 1:-25±2℃ ,30±3 min. Step 2:Room temperature within 15 min. Step 3:+85±5℃ ,30±3 min. Step 4: Room temperature within 15 min. Number of cycles 50
Humidity Resistance 高湿测试	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线	Humidity 90~95%RH. Temperature:40±5℃ . Applied current:rated current. Duration:500± 12hrs. Measured at room temperature after placing for 2 to 3hrs. 湿度： 90~95%RH。 温度： 40±5℃ . 须加电流：额定电流。 放置时间： 500± 12hrs。 测试结束于室温放置2~3小时，始可测试电气特性。

# F-XAL5030HC系列一体电感元件

## SMT Power Inductors- F-XAL5030HC

产品型号

PRODUCT IDENTIFICATION



Tolerance:

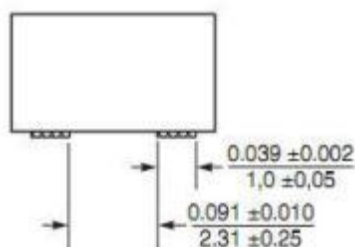
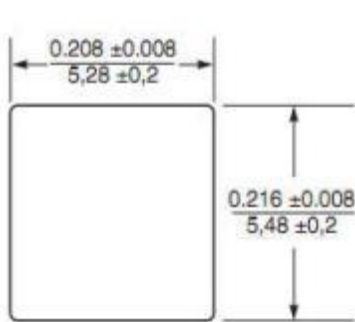
Code	Tolerance
102	1.0μ H
103	10.0μ H
104	100.0μ H
105	1000.0μ H
106	10000.0μ H

Inductance:

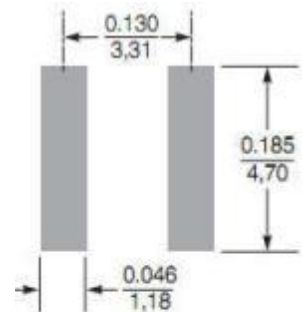
Code	Tolerance
J	±5%
K	± 10%
L	± 15%
M	±20%
N	±30%

外观尺寸

SHAPE AND DIMENSIONS



Dash number	Height* max (in / mm)	Terminal thickness (typ) (in / mm)
-161	0.122 / 3.1	0.0079 / 0.20
-331	0.122 / 3.1	0.0079 / 0.20
-601	0.122 / 3.1	0.0079 / 0.20
-801	0.122 / 3.1	0.0079 / 0.20
-102	0.122 / 3.1	0.0047 / 0.12
-122	0.122 / 3.1	0.0047 / 0.12
-222	0.122 / 3.1	0.0047 / 0.12
-332	0.122 / 3.1	0.0039 / 0.10
-472	0.122 / 3.1	0.0028 / 0.07



**Recommended Land Pattern**

Dimensions are in  $\frac{\text{Inches}}{\text{mm}}$

## F-XAL5030HC系列一体电感元件

### SMT Power Inductors- F-XAL5030HC

规格特性

**SPECIFICATIONS**

Part number	Inductance ( $\mu$ H)	Percent toleranc	DCR max (MOhms)	SRF typ (MHz)	Isat(A) 30%drop	Irms(A) 40°C rise
F-XAL5030HC-161M	0.16 @ 100KHz	20	2.36	183	31	22.2
F-XAL5030HC-331M	0.33 @ 100KHz	20	3.52	108	26	19.2
F-XAL5030HC-601M	0.6 @ 100KHz	20	4.52	75	19.8	17.7
F-XAL5030HC-801M	0.8 @ 100KHz	20	5.65	63	18.5	13
F-XAL5030HC-102M	1.0 @ 100KHz	20	9.4	68	14	11.1
F-XAL5030HC-222M	2.2 @ 100KHz	20	14.5	38	9.2	9.7
F-XAL5030HC-332M	3.3 @ 100KHz	20	23.3	28	8.7	8.1
F-XAL5030HC-472M	4.7 @ 100KHz	20	40	23	6.7	5.9



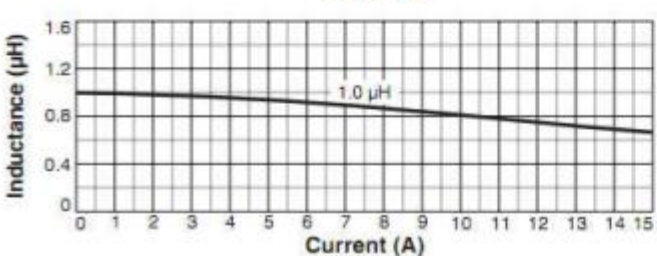
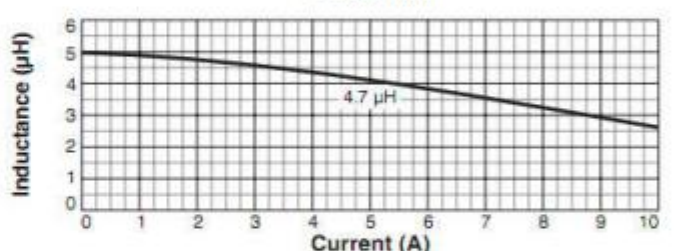
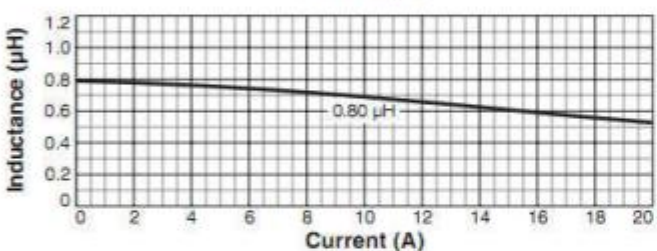
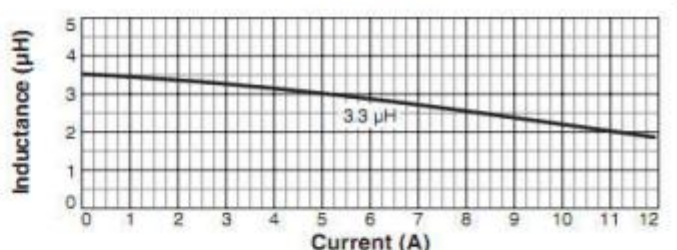
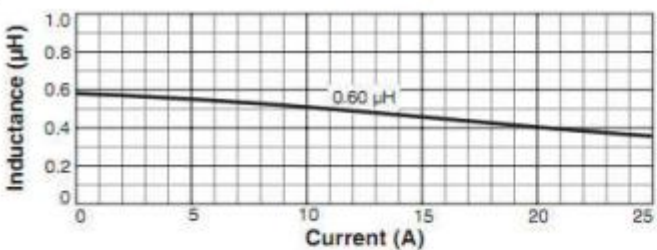
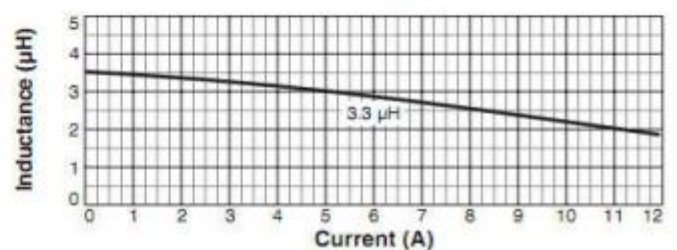
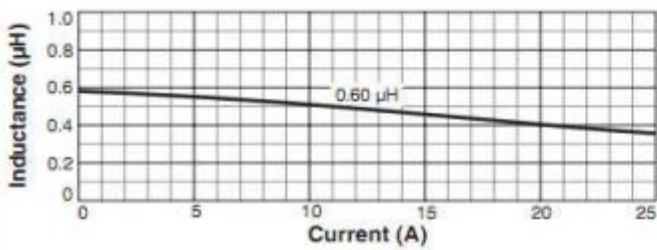
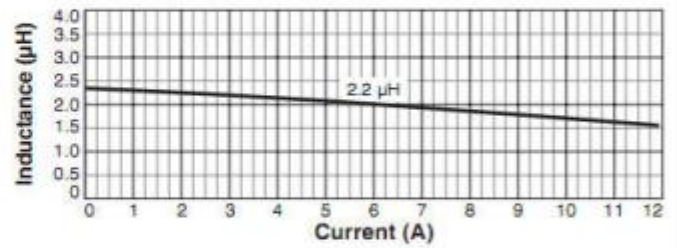
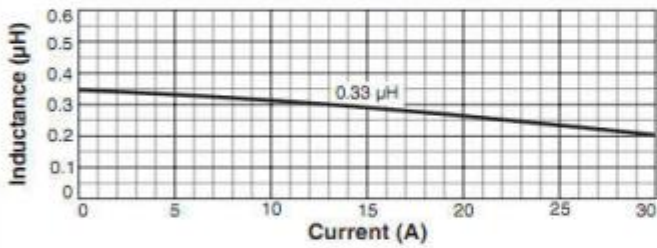
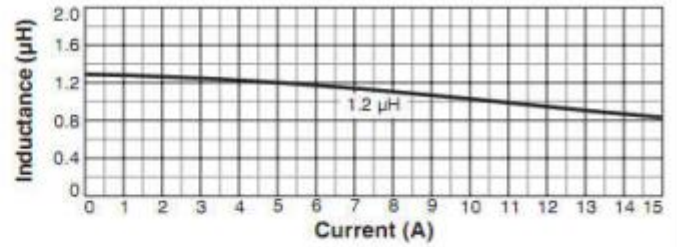
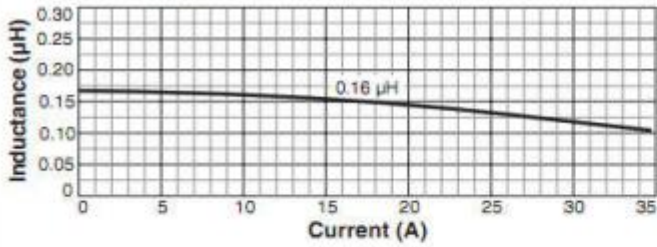
# F-XAL5030HC系列一体电感元件

## SMT Power Inductors- F-XAL5030HC

电气特性

TYPICAL ELECTRICAL CHARACTERISTICS

### L vs Current




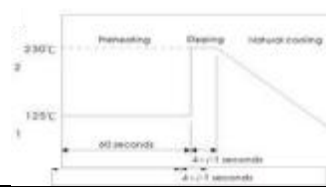
# F-XAL5030HC系列一体电感元件

## SMT Power Inductors- F-XAL5030HC

### 电气特性

### TYPICAL ELECTRICAL CHARACTERISTICS

#### PASSED MEASUREMENT / 通过如下测量

ITEM	Test condition	Test Result
Operating Temperature 操作温度	-40°C ~ + 125°C	5Pcs Passed
Storage temperature 储存温度	-55°C ~ 125°C	5Pcs Passed
Rated Current 额定电流	Refer to standard electrical characteristics list 参考标准特性规格表	5Pcs Passed
Temperature Rise Test 温升测试	40°C max.(Δt) 40度最大	5Pcs Passed
<b>Electrical Performance Test</b>		
Solder Heat Resistance 耐焊锡热	Appearance: No significant abnormality. Inductance change: within ±20%. 外观: 无显著异常。 电感值: 变异性在初始值±20%以内。	Preheat: 150°C, 60sec. Solder: H63A Solder temperature: 260±5°C Flux for lead free: rosin Dip time: 10±0.5sec. 预热: 150°C, 60sec. 锡炉温度: 260±5°C . 时间: 10±0.5sec 助焊剂: rosin. 
Solderability Test 端面焊锡性	More than 90% of the terminal electrode. Should be covered with solder. 端子电极之锡覆盖面达90%以上。	Preheat: 125±25°C, 60sec. Solder: H63A. Solder temperature: 230±5°C Flux for lead free: rosin Dip time: 4±1sec. 预热: 125±25°C, 60sec. 锡炉温度: 230±5°C 时间: 4±1sec. 助焊剂: rosin. 
High Temperature Resistance Test 高温放置测试	Appearance: no damage. Inductance: within ±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值: 变异值在初始值20%以内。 电性无短路或断线。	Temperature: 85±5°C . Applied current: rated current. Duration: 500 hrs.

# F-XAL5030HC系列一体电感元件

## SMT Power Inductors- F-XAL5030HC

### 电气特性

### TYPICAL ELECTRICAL CHARACTERISTICS

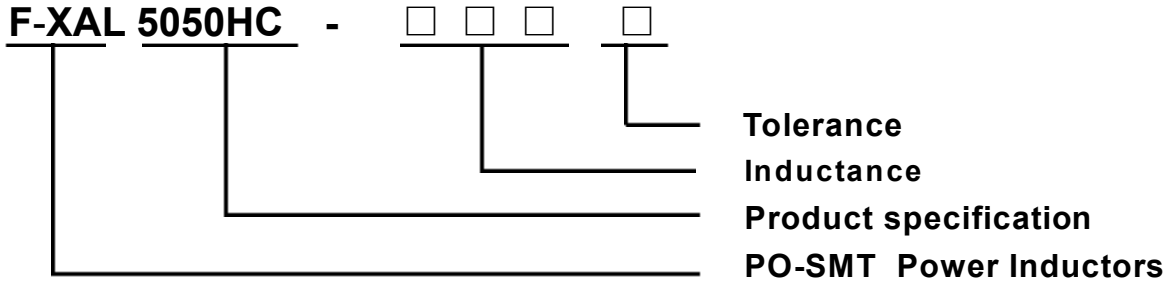
ITEM	Test condition	Test Result
Humidity Resistance Test 高温放置测试	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线。	Temperature:40±2℃ . Applied current:rated current. Duration:500 hrs. Humidity:90~95%.
Thermal shock 热冲击试验	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线。	Condition for 1 cycle Step 1:-25±2℃ ,30±3 min. Step 2:Room temperature within 15 min. Step 3:+85±5℃ ,30±3 min. Step 4: Room temperature within 15 min. Number of cycles 50
Humidity Resistance 高湿测试	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线	Humidity 90~95%RH. Temperature:40±5℃ . Applied current:rated current. Duration:500± 12hrs. Measured at room temperature after placing for 2 to 3hrs. 湿度： 90~95%RH。 温度： 40±5℃ . 须加电流： 额定电流。 放置时间： 500± 12hrs. 测试结束于室温放置2~3小时，始可测试电气特性。

# F-XAL5050HC系列一体电感元件

## SMT Power Inductors- F-XAL5050HC

产品型号

PRODUCT IDENTIFICATION



Tolerance:

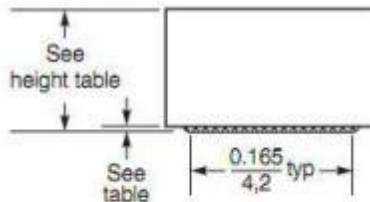
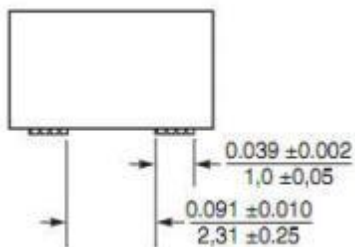
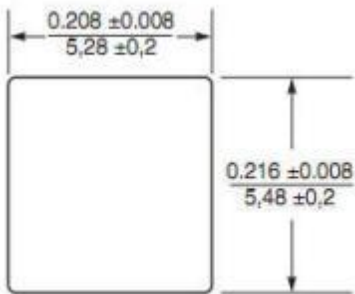
Code	Tolerance
102	1.0μ H
103	10.0μ H
104	100.0μ H
105	1000.0μ H
106	10000.0μ H

Inductance:

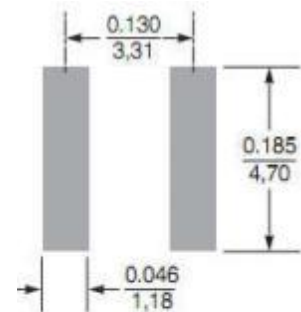
Code	Tolerance
J	±5%
K	± 10%
L	± 15%
M	±20%
N	±30%

外观尺寸

SHAPE AND DIMENSIONS



Dash number	Height* max (in / mm)	Terminal thickness (typ) (in / mm)
-562	0.201 / 5.1	0.0047 / 0.12
-682	0.201 / 5.1	0.0047 / 0.12
-822	0.201 / 5.1	0.0047 / 0.12
-103	0.201 / 5.1	0.0039 / 0.10
-153	0.201 / 5.1	0.0028 / 0.07
-223	0.201 / 5.1	0.0028 / 0.07



Recommended Land Pattern

Dimensions are in  $\frac{\text{inches}}{\text{mm}}$

## F-XAL5050HC系列一体电感元件

### SMT Power Inductors- F-XAL5050HC

规格特性

SPECIFICATIONS

Part number	Inductance (uH)	Percent toleranc	DCR max (MOhms)	SRF typ (MHz)	Isat(A) 30%drop	Irms(A) 40°C rise
F-XAL5050HC-562M	5.6 @ 100KHz	20	25.8	25	6.3	7.2
F-XAL5050HC-682M	6.8 @ 100KHz	20	29.45	21	6	6.4
F-XAL5050HC-822M	8.2 @ 100KHz	20	34.95	18	5.6	6.1
F-XAL5050HC-103M	10 @ 100KHz	20	45	15	4.9	4.9
F-XAL5050HC-153M	15 @ 100KHz	20	76.7	13	3.7	3.9
F-XAL5050HC-223M	22 @ 100KHz	20	99.65	11	3.6	3.4

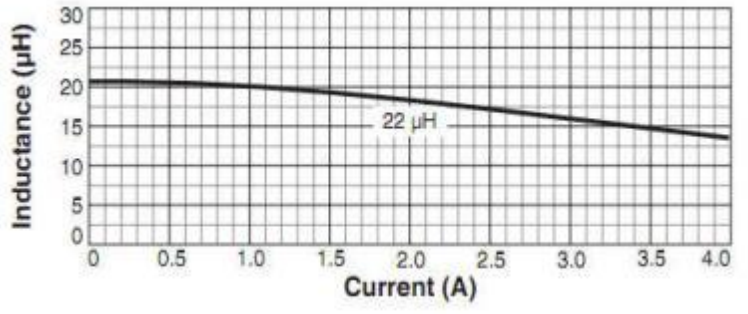
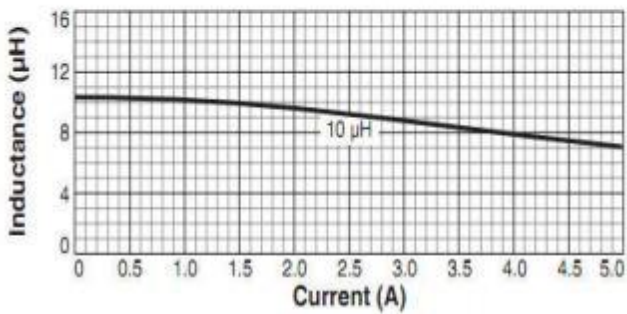
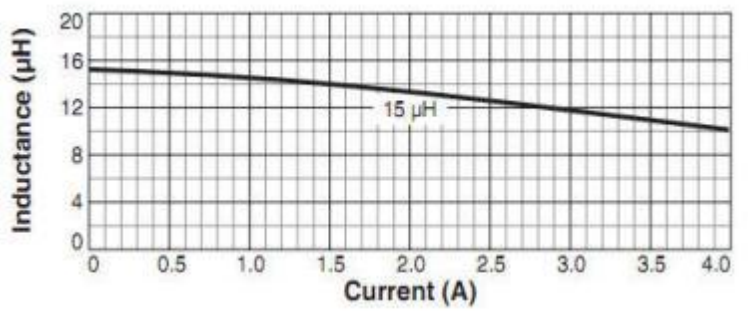
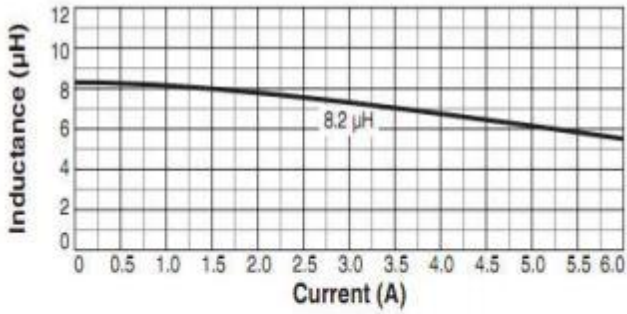
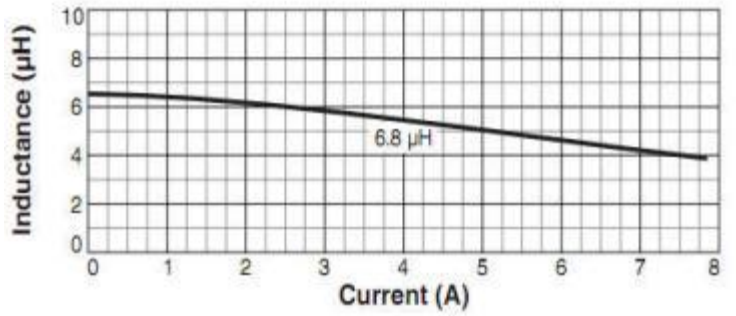
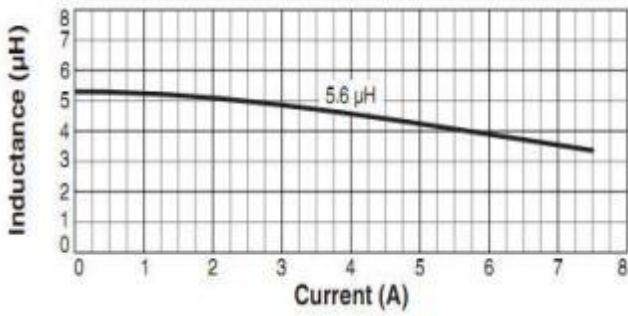
# F-XAL5050HC系列一体电感元件

## SMT Power Inductors- F-XAL5050HC

电气特性

TYPICAL ELECTRICAL CHARACTERISTICS

### L vs Current



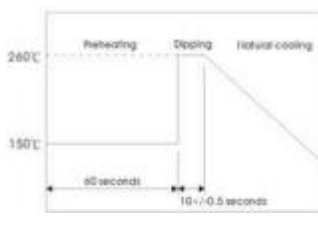
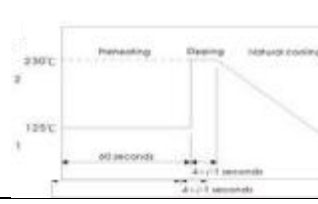
# F-XAL5050HC系列一体电感元件

## SMT Power Inductors- F-XAL5050HC

电气特性

TYPICAL ELECTRICAL CHARACTERISTICS

### PASSED MEASUREMENT / 通过如下测量

ITEM	Test condition	Test Result
Operating Temperature 操作温度	-40°C ~ + 125°C	5Pcs Passed
Storage temperature 储存温度	-55°C ~ 125°C	5Pcs Passed
Rated Current 额定电流	Refer to standard electrical characteristics list 参考标准特性规格表	5Pcs Passed
Temperature Rise Test 温升测试	40°C max.( $\Delta t$ ) 40度最大	5Pcs Passed
<b>Electrical Performance Test</b>		
Solder Heat Resistance 耐焊锡热	Appearance: No significant abnormality. Inductance change: within $\pm 20\%$ . 外观: 无显著异常。 电感值: 变异性在初始值 $\pm 20\%$ 以内。	Preheat: 150°C, 60sec. Solder: H63A Solder temperature: 260 $\pm 5$ °C Flux for lead free: rosin Dip time: 10 $\pm 0.5$ sec. 预热: 150°C, 60sec. 锡炉温度: 260 $\pm 5$ °C . 时间: 10 $\pm 0.5$ sec 助焊剂: rosin. 
Solderability Test 端面焊锡性	More than 90% of the terminal electrode. Should be covered with solder. 端子电极之锡覆盖面达90%以上。	Preheat: 125 $\pm 25$ °C, 60sec. Solder: H63A. Solder temperature: 230 $\pm 5$ °C Flux for lead free: rosin Dip time: 4 $\pm 1$ sec. 预热: 125 $\pm 25$ °C, 60sec. 锡炉温度: 230 $\pm 5$ °C 时间: 4 $\pm 1$ sec. 助焊剂: rosin. 
High Temperature Resistance Test 高温放置测试	Appearance: no damage. Inductance: within $\pm 20\%$ of initial value NO disconnection or short circuit. 外观不能破损。 电感值: 变异值在初始值20%以内。 电性无短路或断线。	Temperature: 85 $\pm 5$ °C . Applied current: rated current. Duration: 500 hrs.

# F-XAL5050HC系列一体电感元件

## SMT Power Inductors- F-XAL5050HC

### 电气特性

### TYPICAL ELECTRICAL CHARACTERISTICS

ITEM	Test condition	Test Result
Humidity Resistance Test 高温放置测试	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线。	Temperature:40±2℃ . Applied current:rated current. Duration:500 hrs. Humidity:90~95%.
Thermal shock 热冲击试验	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线。	Condition for 1 cycle Step 1:-25±2℃,30±3 min. Step 2:Room temperature within 15 min. Step 3:+85±5℃,30±3 min. Step 4: Room temperature within 15 min. Number of cycles 50
Humidity Resistance 高湿测试	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线	Humidity 90~95%RH. Temperature:40±5℃ . Applied current:rated current. Duration:500± 12hrs. Measured at room temperature after placing for 2 to 3hrs. 湿度：90~95%RH。 温度：40±5℃ . 须加电流：额定电流。 放置时间：500± 12hrs. 测试结束于室温放置2~3小时，始可测试电气特性。

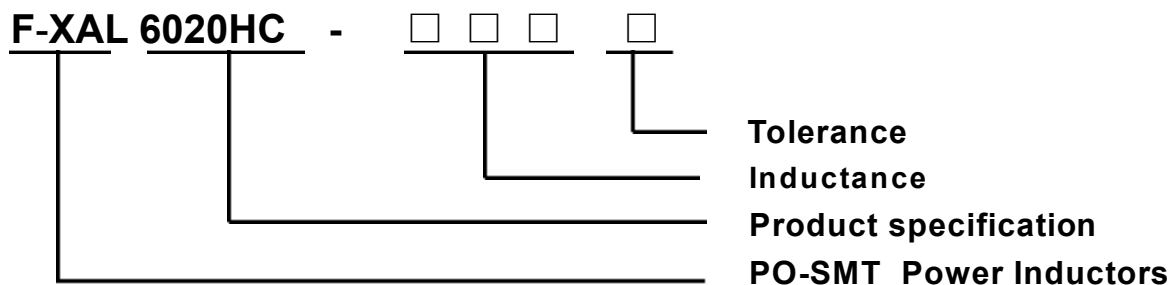


# F-XAL6020HC系列一体电感元件

## SMT Power Inductors- F-XAL6020HC

产品型号

PRODUCT IDENTIFICATION



Tolerance:

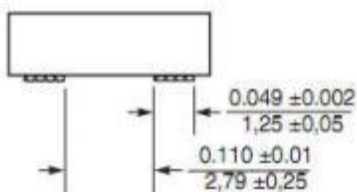
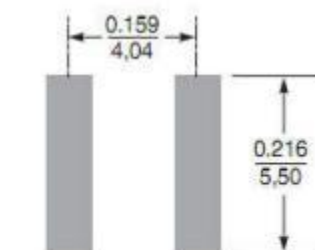
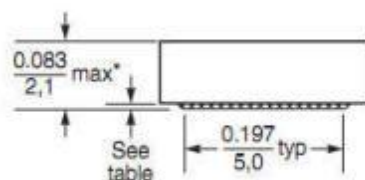
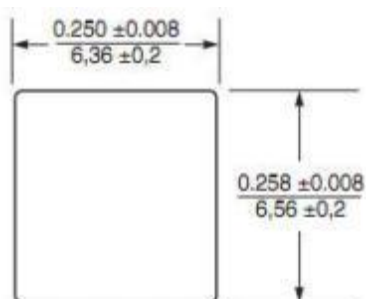
Code	Tolerance
102	1.0 $\mu$ H
103	10.0 $\mu$ H
104	100.0 $\mu$ H
105	1000.0 $\mu$ H
106	10000.0 $\mu$ H

Inductance:

Code	Tolerance
J	$\pm 5\%$
K	$\pm 10\%$
L	$\pm 15\%$
M	$\pm 20\%$
N	$\pm 30\%$

外观尺寸

SHAPE AND DIMENSIONS



Dash number	Terminal thickness (typ) (in / mm)
-121	0.0106 / 0.27
-161	0.0071 / 0.18
-271	0.0071 / 0.18
-451	0.0071 / 0.18
-601	0.0047 / 0.12
-901	0.0039 / 0.10
-112	0.0039 / 0.10

Recommended Land Pattern

Dimensions are in inches / mm

## F-XAL6020HC系列一体电感元件

### SMT Power Inductors- F-XAL6020HC

规格特性

**SPECIFICATIONS**

Part number	Inductance ( $\mu$ H)	Percent toleranc	DCR max (MOhms)	SRF typ (MHz)	Isat(A) 30%drop	Irms(A) 40°C rise
F-XAL6020HC-121M	0.12 @ 100KHz	20	1.85	165	45	27
F-XAL6020HC-161M	0.16 @ 100KHz	20	2.7	152	41	26
F-XAL6020HC-271M	0.27 @ 100KHz	20	3.85	97	29.5	25
F-XAL6020HC-451M	0.45 @ 100KHz	20	5.05	73	24.5	22
F-XAL6020HC-601M	0.60 @ 100KHz	20	7.1	66	20.5	18.5
F-XAL6020HC-901M	0.90 @ 100KHz	20	11.1	56	19.1	15.2
F-XAL6020HC-112M	1.10 @ 100KHz	20	13.1	50	17.1	12

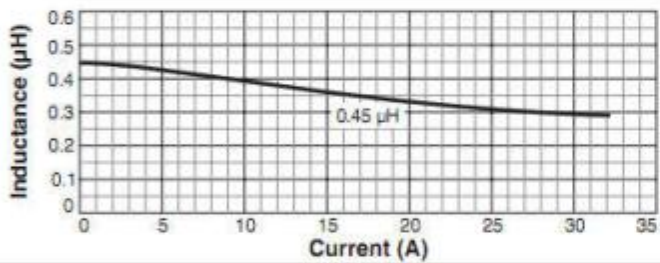
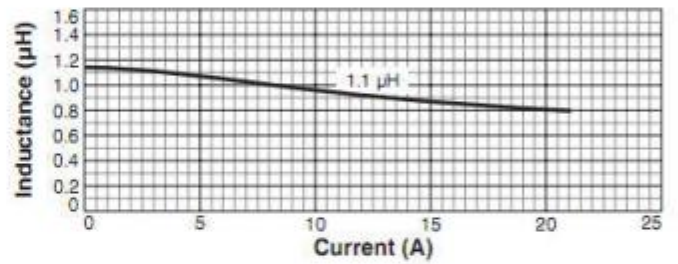
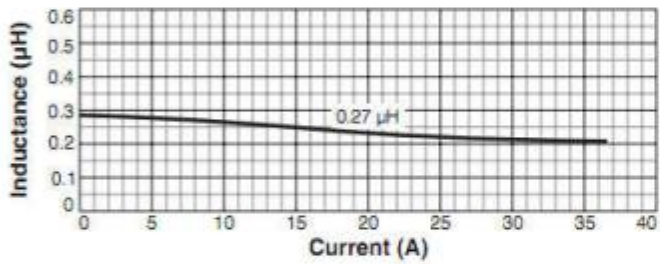
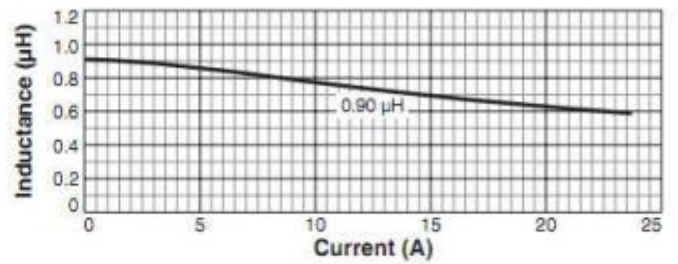
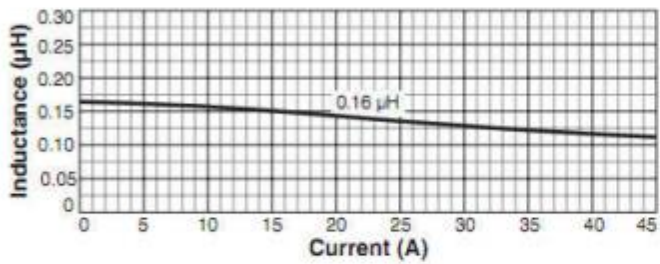
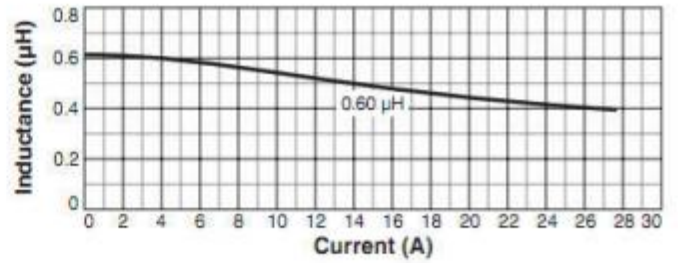
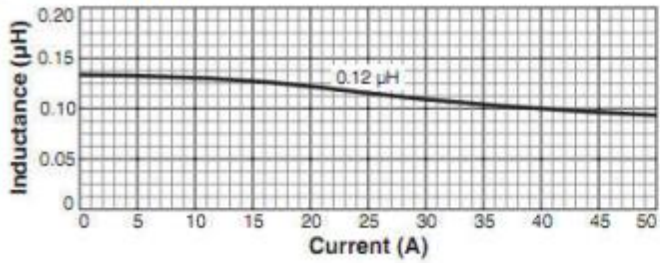
# F-XAL6020HC系列一体电感元件

## SMT Power Inductors- F-XAL6020HC

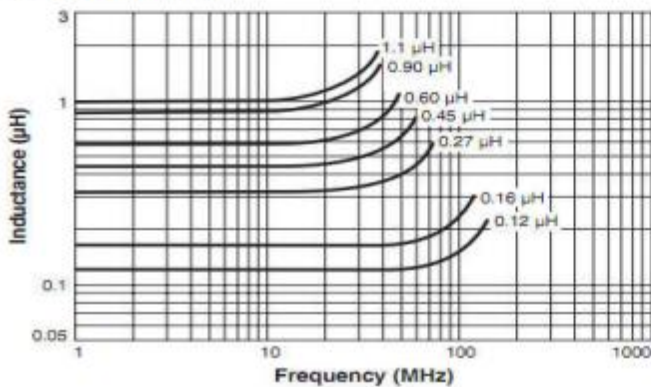
电气特性

TYPICAL ELECTRICAL CHARACTERISTICS

### L vs Current



### L vs Frequency



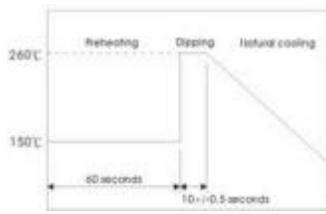
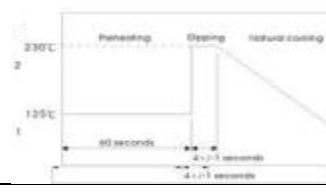
# F-XAL6020HC系列一体电感元件

## SMT Power Inductors- F-XAL6020HC

### 电气特性

### TYPICAL ELECTRICAL CHARACTERISTICS

#### PASSED MEASUREMENT / 通过如下测量

ITEM	Test condition	Test Result
Operating Temperature 操作温度	-40℃ ~ + 125℃	5Pcs Passed
Storage temperature 储存温度	-55℃ ~ 125℃	5Pcs Passed
Rated Current 额定电流	Refer to standard electrical characteristics list 参考标准特性规格表	5Pcs Passed
Temperature Rise Test 温升测试	40℃ max.(Δt) 40度最大	5Pcs Passed
<b>Electrical Performance Test</b>		
Solder Heat Resistance 耐焊锡热	Appearance:No significant abnormality. Inductance change:W ithin ±20%. 外观：无显著异常。 电感值：变异性在初始值±20%以内。	Preheat:150℃,60sec. Solder:H63A Solder temperature:260±5℃ Flux for lead free:rosin Dip time:10±0.5sec. 预热：150℃，60sec。 锡炉温度：260±5℃。 时间：10±0.5sec 助焊剂：rosin. 
Solderability Test 端面锡性	More than 90% of the terminal electrode. Should be covered with solder. 端子电极之锡覆盖面达90%以上。	Preheat:125±25℃,60sec. Solder:H63A. Solder temperature:230±5℃ Flux for lead free:rosin Dip time:4± 1sec. 预热：125±25℃,60sec. 锡炉温度：230±5℃ 时间：4± 1sec. 助焊剂：rosin. 
High Temperature Resistance Test 高温放置测试	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异性在初始值20%以内。 电性无短路或断线。	Temperature:85±5℃ . Applied current:rated current. Duration:500 hrs.

# F-XAL6020HC系列一体电感元件

## SMT Power Inductors- F-XAL6020HC

### 电气特性

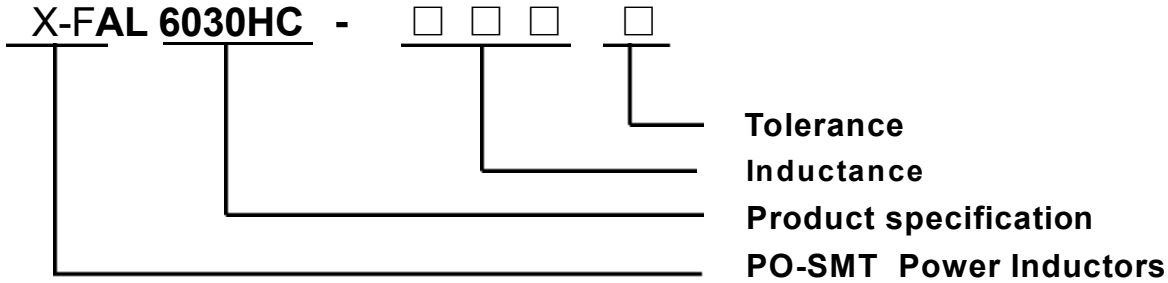
### TYPICAL ELECTRICAL CHARACTERISTICS

ITEM	Test condition	Test Result
Humidity Resistance Test 高温放置测试	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线。	Temperature:40±2℃ . Applied current:rated current. Duration:500 hrs. Humidity:90~95%.
Thermal shock 热冲击试验	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线。	Condition for 1 cycle Step 1:-25±2℃,30±3 min. Step 2:Room temperature within 15 min. Step 3:+85±5℃,30±3 min. Step 4: Room temperature within 15 min. Number of cycles 50
Humidity Resistance 高湿测试	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线	Humidity 90~95%RH. Temperature:40±5℃ . Applied current:rated current. Duration:500± 12hrs. Measured at room temperature after placing for 2 to 3hrs. 湿度：90~95%RH。 温度：40±5℃ . 须加电流：额定电流。 放置时间：500± 12hrs。 测试结束于室温放置2~3小时，始可测试电气特性。

# F-XAL6030HC系列一体电感元件

## SMT Power Inductors- F-XAL6030HC

### 产品型号 PRODUCT IDENTIFICATION



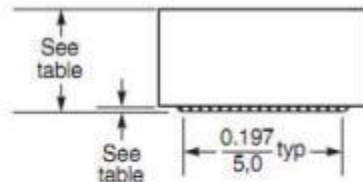
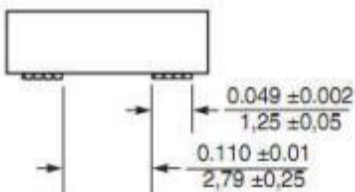
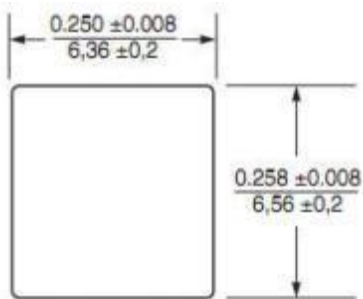
**Tolerance:**

Code	Tolerance
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103	10.0μ H
104	100.0μ H
105	1000.0μ H
106	10000.0μ H

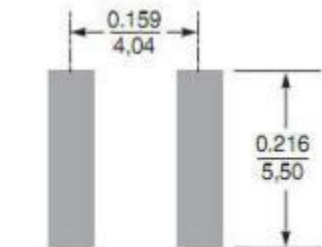
**Inductance:**

Code	Tolerance
J	±5%
K	± 10%
L	± 15%
M	±20%
N	±30%

### 外观尺寸 SHAPE AND DIMENSIONS



Dash number	Height* max (in / mm)	Terminal thickness (typ) (in / mm)
-181	0.122 / 3.1	0.0106 / 0.27
-331	0.122 / 3.1	0.0106 / 0.27
-561	0.122 / 3.1	0.0106 / 0.27
-102	0.122 / 3.1	0.0071 / 0.18
-122	0.122 / 3.1	0.0071 / 0.18
-182	0.122 / 3.1	0.0059 / 0.15
-222	0.122 / 3.1	0.0047 / 0.12
-332	0.122 / 3.1	0.0039 / 0.10



**Recommended Land Pattern**

Dimensions are in inches / mm

## F-XAL6030HC系列一体电感元件

### SMT Power Inductors- F-XAL6030HC

规格特性

**SPECIFICATIONS**

Part number	Inductance (uH)	Percent toleranc	DCR max (MOhms)	SRF typ (MHz)	Isat(A) 30%drop	Irms(A) 40°C rise
F-XAL6030HC-181M	0.18 @ 100KHz	20	1.75	141	39	32
F-XAL6030HC-331M	0.33 @ 100KHz	20	2.53	89	30	25
F-XAL6030HC-561M	0.56 @ 100KHz	20	3.31	61	29	22
F-XAL6030HC-102M	1.0 @ 100KHz	20	6.18	50	23	18
F-XAL6030HC-122M	1.2 @ 100KHz	20	7.5	43	22	16
F-XAL6030HC-182M	1.8 @ 100KHz	20	10.52	34	18.2	14
F-XAL6030HC-222M	2.2 @ 100KHz	20	13.97	30	15.9	10
F-XAL6030HC-332M	3.3 @ 100KHz	20	20.81	26	12.2	8

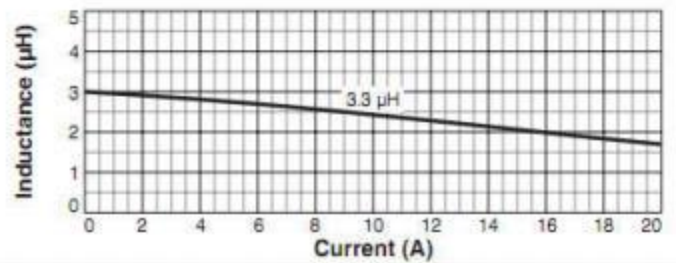
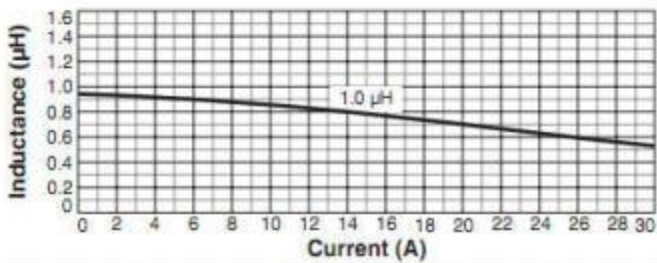
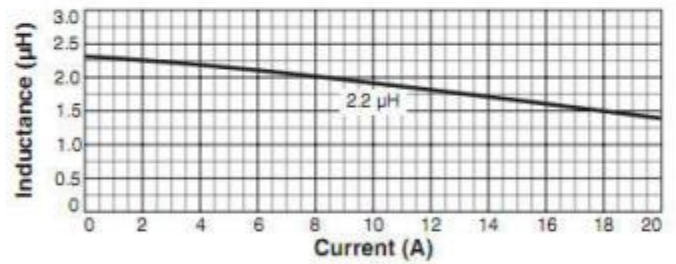
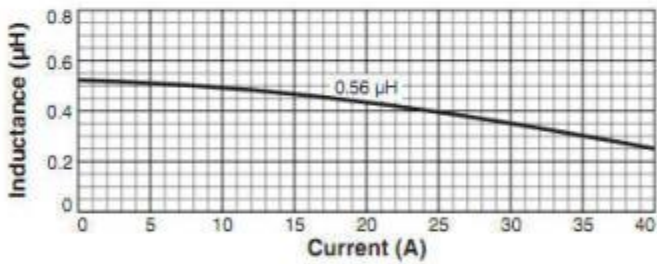
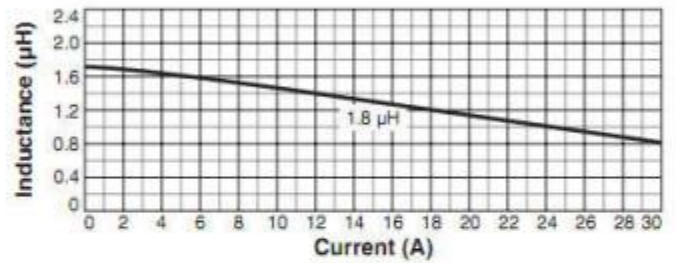
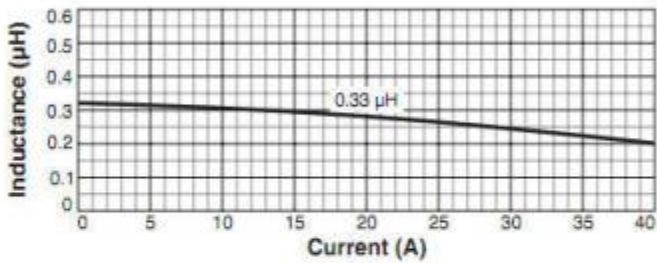
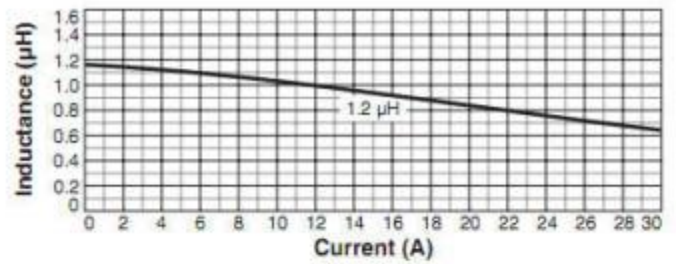
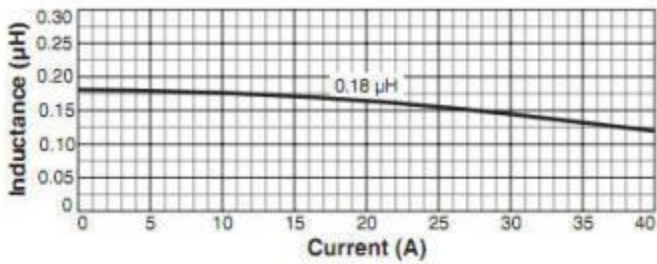
# F-XAL6030HC系列一体电感元件

## SMT Power Inductors- F-XAL6030HC

电气特性

TYPICAL ELECTRICAL CHARACTERISTICS

### L vs Current





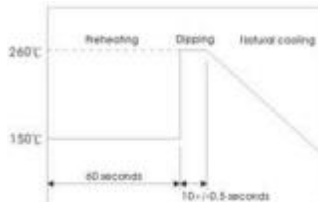
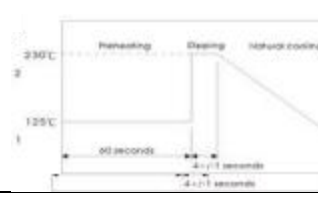
# F-XAL6030HC系列一体电感元件

## SMT Power Inductors- F-XAL6030HC

### 电气特性

### TYPICAL ELECTRICAL CHARACTERISTICS

#### PASSED MEASUREMENT / 通过如下测量

ITEM	Test condition	Test Result
Operating Temperature 操作温度	-40℃ ~ + 125℃	5Pcs Passed
Storage temperature 储存温度	-55℃ ~ 125℃	5Pcs Passed
Rated Current 额定电流	Refer to standard electrical characteristics list 参考标准特性规格表	5Pcs Passed
Temperature Rise Test 温升测试	40℃ max.(Δt) 40度最大	5Pcs Passed
<b>Electrical Performance Test</b>		
Solder Heat Resistance 耐焊锡热	Appearance: No significant abnormality. Inductance change: within ±20%. 外观: 无显著异常。 电感值: 变异性在初始值±20%以内。	Preheat: 150℃, 60sec. Solder: H63A Solder temperature: 260±5℃ Flux for lead free: rosin Dip time: 10±0.5sec. 预热: 150℃, 60sec. 锡炉温度: 260±5℃ . 时间: 10±0.5sec 助焊剂: rosin. 
Solderability Test 端面焊锡性	More than 90% of the terminal electrode. Should be covered with solder. 端子电极之锡覆盖面积达90%以上。	Preheat: 125±25℃, 60sec. Solder: H63A. Solder temperature: 230±5℃ Flux for lead free: rosin Dip time: 4±1sec. 预热: 125±25℃, 60sec. 锡炉温度: 230±5℃ 时间: 4±1sec. 助焊剂: rosin. 
High Temperature Resistance Test 高温放置测试	Appearance: no damage. Inductance: within ±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值: 变异性在初始值20%以内。 电性无短路或断线。	Temperature: 85±5℃ . Applied current: rated current. Duration: 500 hrs.

# F-XAL6030HC系列一体电感元件

## SMT Power Inductors- F-XAL6030HC

### 电气特性

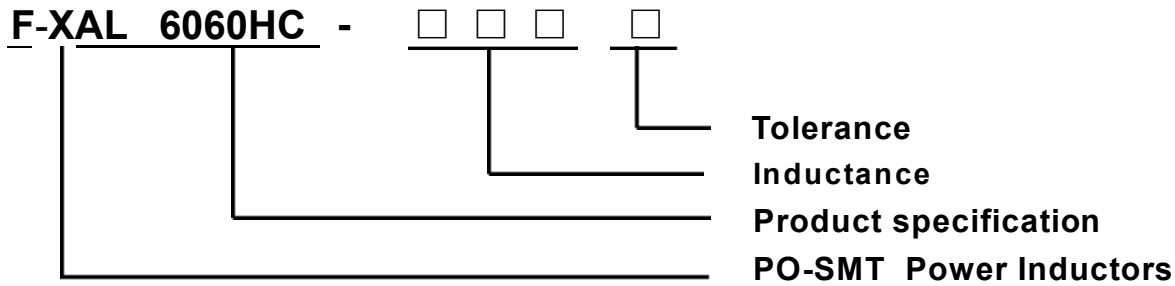
### TYPICAL ELECTRICAL CHARACTERISTICS

ITEM	Test condition	Test Result
Humidity Resistance Test 高温放置测试	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线。	Temperature:40±2℃ . Applied current:rated current. Duration:500 hrs. Humidity:90~95%.
Thermal shock 热冲击试验	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线。	Condition for 1 cycle Step 1:-25±2℃ ,30±3 min. Step 2:Room temperature within 15 min. Step 3:+85±5℃ ,30±3 min. Step 4: Room temperature within 15 min. Number of cycles 50
Humidity Resistance 高湿测试	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线	Humidity 90~95%RH. Temperature:40±5℃ . Applied current:rated current. Duration:500± 12hrs. Measured at room temperature after placing for 2 to 3hrs. 湿度：90~95%RH。 温度：40±5℃ . 须加电流：额定电流。 放置时间：500± 12hrs. 测试结束于室温放置2~3小时，始可测试电气特性。

# F-XAL6060HC系列一体电感元件

## SMT Power Inductors-F-XAL6060HC

### 产品型号 PRODUCT IDENTIFICATION



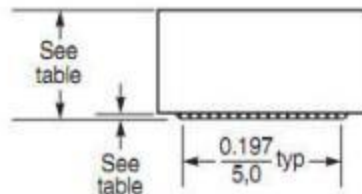
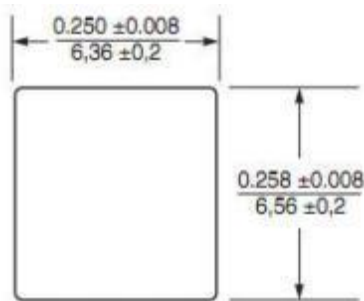
**Tolerance:**

Code	Tolerance
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103	10.0μ H
104	100.0μ H
105	1000.0μ H
106	10000.0μ H

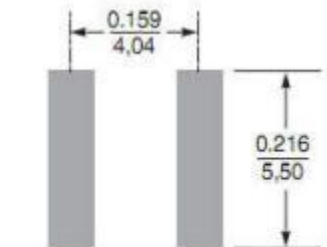
**Inductance:**

Code	Tolerance
J	±5%
K	± 10%
L	± 15%
M	±20%
N	±30%

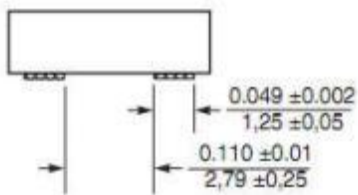
### 外观尺寸 SHAPE AND DIMENSIONS



Dash number	Height* max (in / mm)	Terminal thickness (typ) (in / mm)
-472	0.240 / 6.1	0.0071 / 0.18
-562	0.240 / 6.1	0.0071 / 0.18
-682	0.240 / 6.1	0.0059 / 0.15
-822	0.240 / 6.1	0.0047 / 0.12
-103	0.240 / 6.1	0.0047 / 0.12
-153	0.240 / 6.1	0.0039 / 0.10
-223	0.240 / 6.1	0.0039 / 0.10



**Recommended Land Pattern**



Dimensions are in inches / mm

## F-XAL6060HC系列一体电感元件

### SMT Power Inductors-F-XAL6060HC

规格特性

SPECIFICATIONS

Part number	Inductance (uH)	Percent toleranc	DCR max (MOhms)	SRF typ (MHz)	Isat(A) 30%drop	Irms(A) 40°C rise
F-XAL6060HC-472M	4.7 @ 100KHz	20	14.4	21	10.5	11
F-XAL6060HC-562M	5.6 @ 100KHz	20	15.9	20	9.9	10
F-XAL6060HC-682M	6.8 @ 100KHz	20	20.8	18	9.2	9
F-XAL6060HC-822M	8.2 @ 100KHz	20	26.4	16	8.4	8
F-XAL6060HC-103M	10 @ 100KHz	20	29.82	14	7.6	7
F-XAL6060HC-153M	15 @ 100KHz	20	43.75	11	5.8	6
F-XAL6060HC-223M	22 @ 100KHz	20	60.63	9	5.6	5

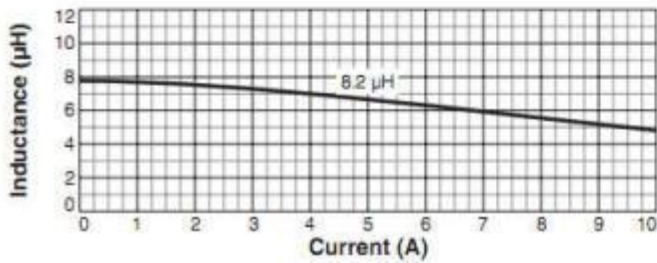
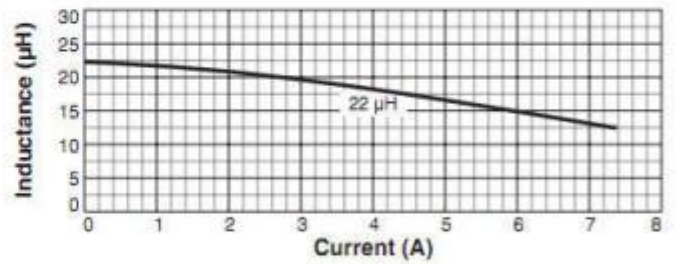
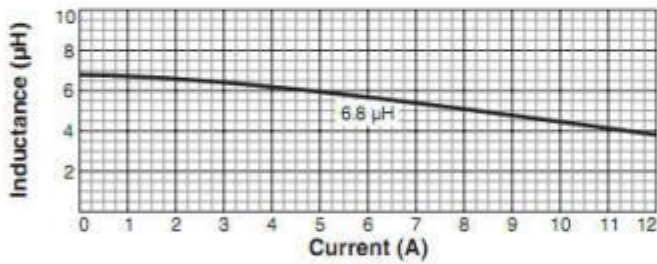
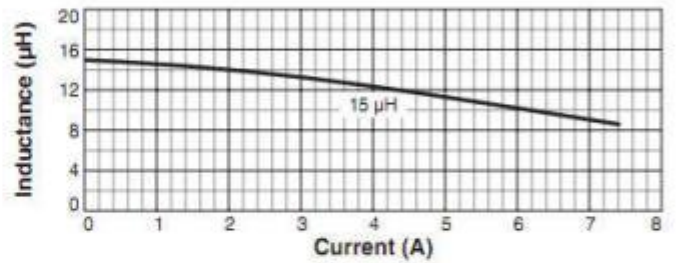
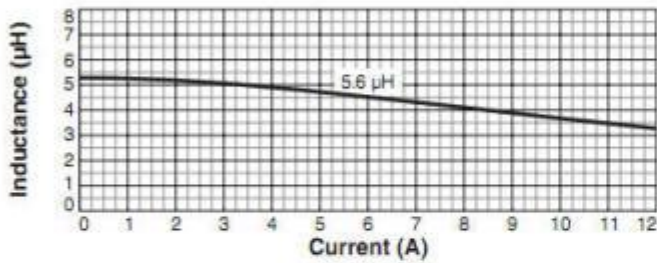
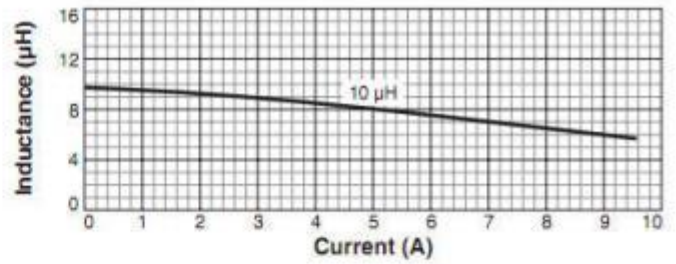
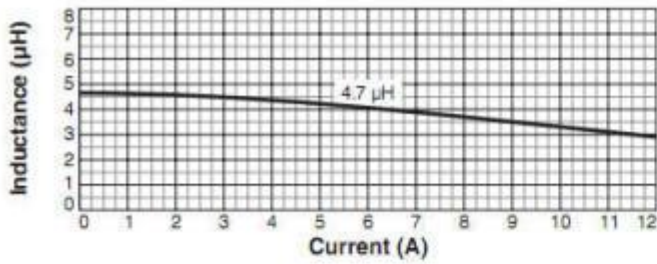
# F-XAL6060HC系列一体电感元件

## SMT Power Inductors-F-XAL6060HC

电气特性

TYPICAL ELECTRICAL CHARACTERISTICS

### L vs Current



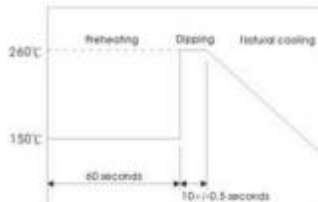
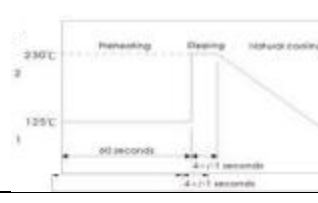
# F-XAL6060HC系列一体电感元件

## SMT Power Inductors-F-XAL6060HC

### 电气特性

### TYPICAL ELECTRICAL CHARACTERISTICS

#### PASSED MEASUREMENT / 通过如下测量

ITEM	Test condition	Test Result
Operating Temperature 操作温度	-40℃ ~ + 125℃	5Pcs Passed
Storage temperature 储存温度	-55℃ ~ 125℃	5Pcs Passed
Rated Current 额定电流	Refer to standard electrical characteristics list 参考标准特性规格表	5Pcs Passed
Temperature Rise Test 温升测试	40℃ max.(Δt) 40度最大	5Pcs Passed
<b>Electrical Performance Test</b>		
Solder Heat Resistance 耐焊锡热	Appearance: No significant abnormality. Inductance change: within ±20%. 外观: 无显著异常。 电感值: 变异性在初始值±20%以内。	Preheat: 150℃, 60sec. Solder: H63A Solder temperature: 260±5℃ Flux for lead free: rosin Dip time: 10±0.5sec. 预热: 150℃, 60sec. 锡炉温度: 260±5℃ . 时间: 10±0.5sec 助焊剂: rosin. 
Solderability Test 端面焊锡性	More than 90% of the terminal electrode. Should be covered with solder. 端子电极之锡覆盖面积达90%以上。	Preheat: 125±25℃, 60sec. Solder: H63A. Solder temperature: 230±5℃ Flux for lead free: rosin Dip time: 4±1sec. 预热: 125±25℃, 60sec. 锡炉温度: 230±5℃ 时间: 4±1sec. 助焊剂: rosin. 
High Temperature Resistance Test 高温放置测试	Appearance: no damage. Inductance: within ±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值: 变异性在初始值20%以内。 电性无短路或断线。	Temperature: 85±5℃ . Applied current: rated current. Duration: 500 hrs.

# F-XAL6060HC系列一体电感元件

## SMT Power Inductors-F-XAL6060HC

### 电气特性

### TYPICAL ELECTRICAL CHARACTERISTICS

ITEM	Test condition	Test Result
Humidity Resistance Test 高温放置测试	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线。	Temperature:40±2℃ . Applied current:rated current. Duration:500 hrs. Humidity:90~95%.
Thermal shock 热冲击试验	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线。	Condition for 1 cycle Step 1:-25±2℃ ,30±3 min. Step 2:Room temperature within 15 min. Step 3:+85±5℃ ,30±3 min. Step 4: Room temperature within 15 min. Number of cycles 50
Humidity Resistance 高湿测试	Appearance:no damage. Inductance:within±20% of initial value NO disconnection or short circuit. 外观不能破损。 电感值：变异值在初始值20%以内。 电性无短路或断线	Humidity 90~95%RH. Temperature:40±5℃ . Applied current:rated current. Duration:500± 12hrs. Measured at room temperature after placing for 2 to 3hrs. 湿度：90~95%RH。 温度：40±5℃ . 须加电流：额定电流。 放置时间：500± 12hrs. 测试结束于室温放置2~3小时，始可测试电气特性。

