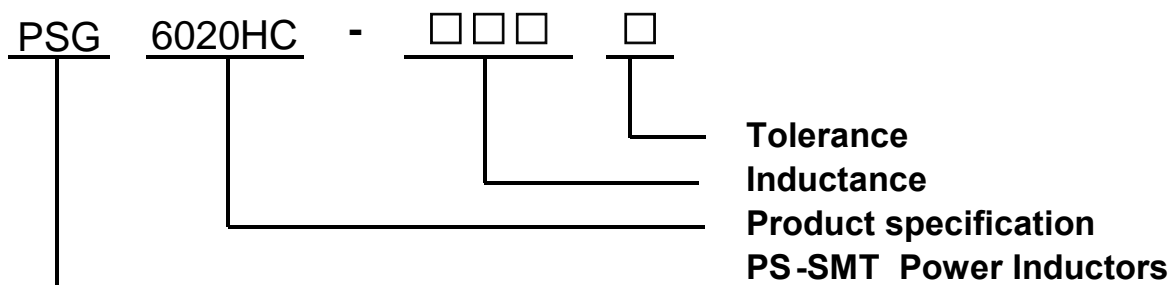


## SMT Power Inductors- PSG6020HC

### 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 |

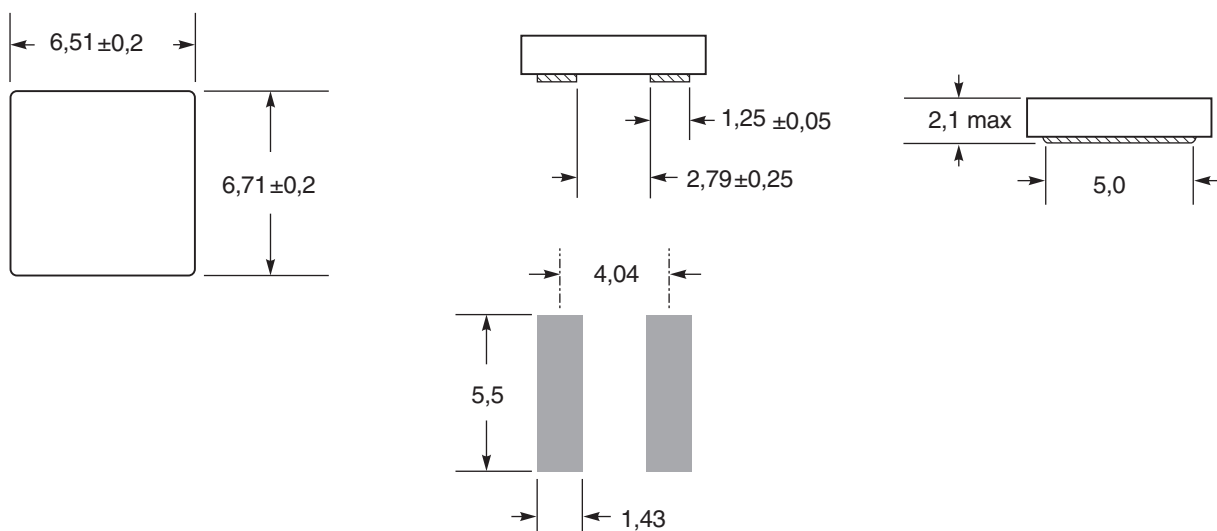
#### Inductance:

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

### 外观尺寸

### SHAPE AND DIMENSIONS

单位 : mm



推荐焊盘



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## SMT Power Inductors- PSG6020HC

### 规格特性

### SPECIFICATIONS

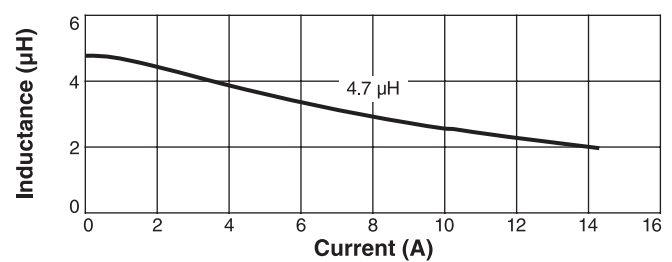
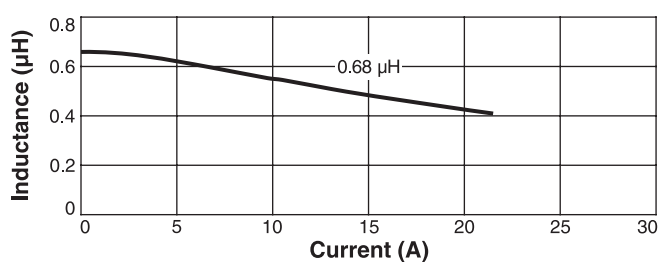
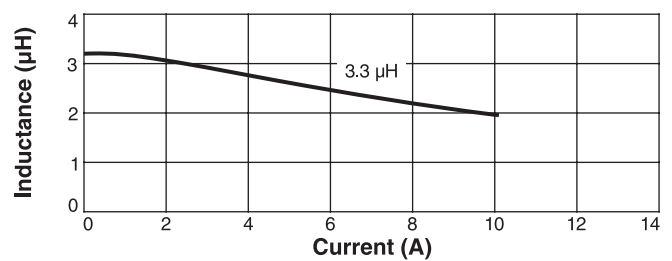
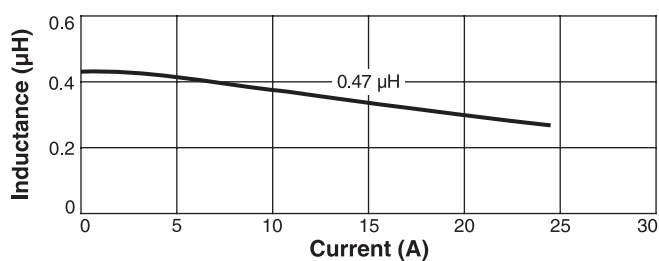
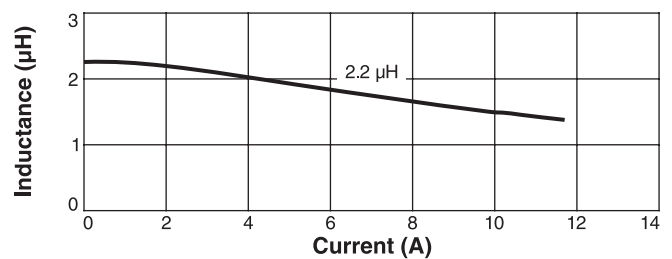
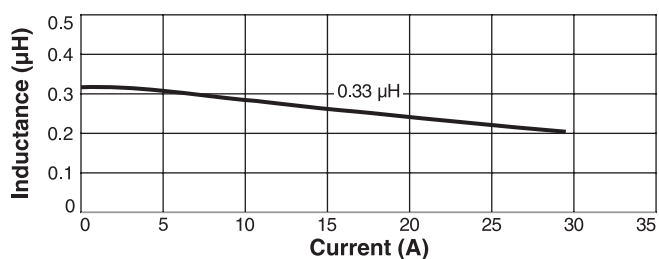
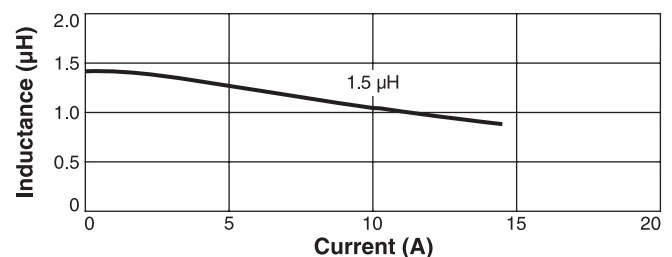
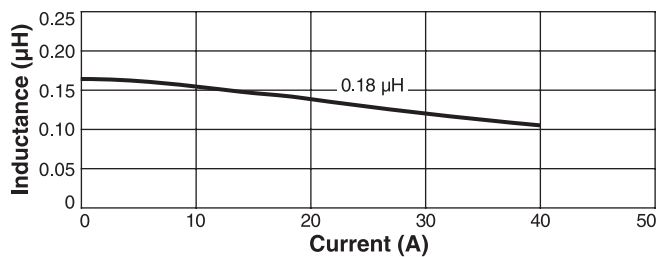
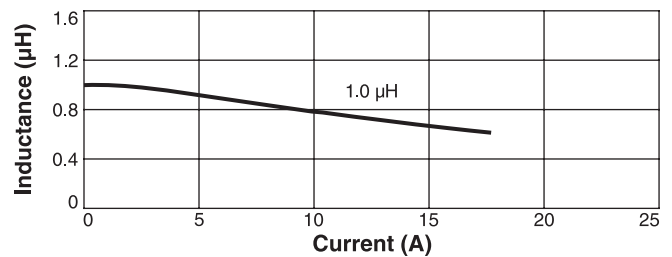
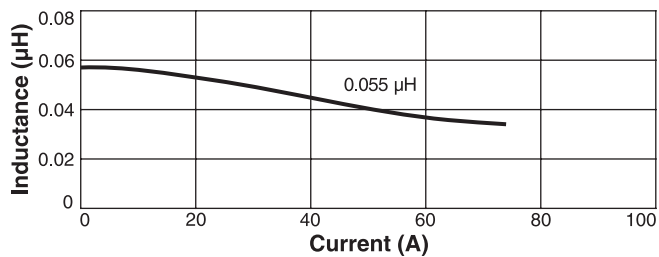
| Part number    | Inductance<br>(uH) | Percent<br>tolerance | DCR max<br>(mOhms) | SRF typ<br>(MHz) | Isat<br>(A) | Irms(A)   |           |
|----------------|--------------------|----------------------|--------------------|------------------|-------------|-----------|-----------|
|                |                    |                      |                    |                  |             | 20°C rise | 40°C rise |
| PSG6020HC-550M | 0.055 @ 1MHZ       | 20                   | 0.87               | 485              | 51.5        | 28.0      | 38.0      |
| PSG6020HC-181M | 0.18 @ 1MHZ        | 20                   | 1.8                | 150              | 33.0        | 22.4      | 30.4      |
| PSG6020HC-331M | 0.33 @ 1MHZ        | 20                   | 3.1                | 85               | 25.0        | 17.8      | 23.7      |
| PSG6020HC-471M | 0.47 @ 1MHZ        | 20                   | 4.2                | 75               | 19.3        | 15.8      | 21.8      |
| PSG6020HC-681M | 0.68 @ 1MHZ        | 20                   | 5.5                | 58               | 16.7        | 13.7      | 19.0      |
| PSG6020HC-102M | 1.00 @ 1MHZ        | 20                   | 8                  | 45               | 13.4        | 11.0      | 13.9      |
| PSG6020HC-152M | 1.50 @ 1MHZ        | 20                   | 11                 | 38               | 11.4        | 9.1       | 12.0      |
| PSG6020HC-222M | 2.20 @ 1MHZ        | 20                   | 16.1               | 27               | 8.8         | 8.4       | 11.4      |
| PSG6020HC-332M | 3.30 @ 1MHZ        | 20                   | 24.3               | 23               | 7.6         | 6.4       | 8.8       |
| PSG6020HC-472M | 4.70 @ 1MHZ        | 20                   | 33.8               | 18               | 6.0         | 5.6       | 7.7       |
| PSG6020HC-562M | 5.60 @ 1MHZ        | 20                   | 40.4               | 17               | 5.7         | 4.6       | 6.3       |
| PSG6020HC-682M | 6.80 @ 1MHZ        | 20                   | 49.8               | 15               | 5.1         | 4.5       | 6.2       |
| PSG6020HC-822M | 8.20 @ 1MHZ        | 20                   | 56.4               | 14.5             | 4.8         | 4.1       | 5.6       |
| PSG6020HC-103M | 10.0 @ 1MHZ        | 20                   | 77.5               | 14               | 4.4         | 3.5       | 4.7       |

## SMT Power Inductors- PSG6020HC

### 电气特性

### TYPICAL ELECTRICAL CHARACTERISTICS

#### L vs Current





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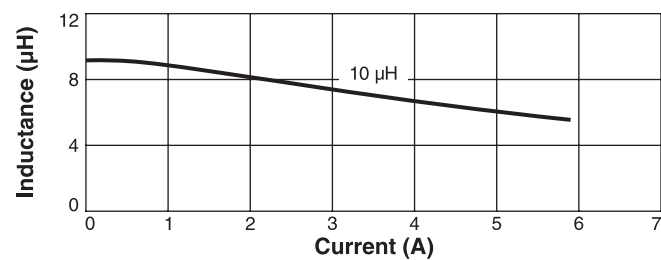
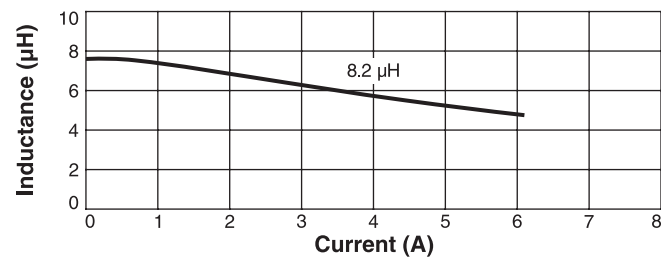
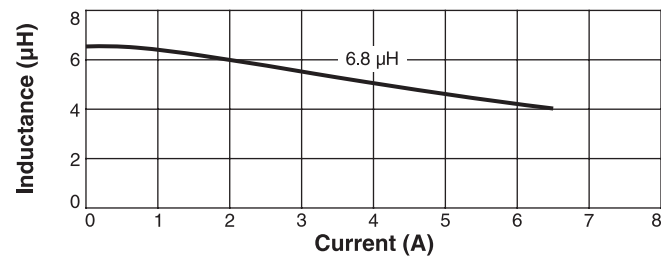
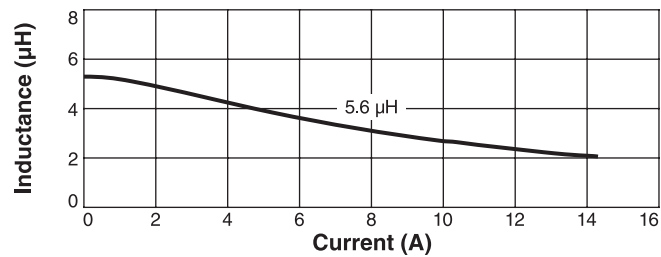
Email: xy@frcoil.com

## SMT Power Inductors- PSG6020HC

电气特性

### TYPICAL ELECTRICAL CHARACTERISTICS

L vs Current





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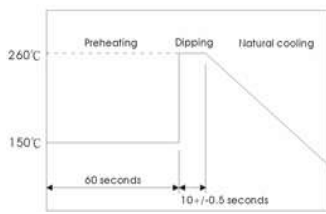
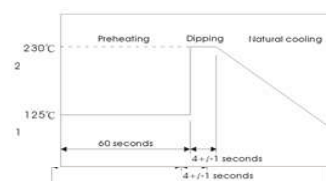
### 电气特性

### TYPICAL ELECTRICAL CHARACTERISTICS

#### PASSED MEASUREMENT / 通过如下测量

| ITEM                          | Test condition   | Test Result |
|-------------------------------|--|-------------|
| Operating Temperature<br>操作温度 | -40℃ ~ +125℃   | 5Pcs Passed |
| Storage temperature<br>储存温度   | -55℃ ~ 125℃  | 5Pcs Passed |
| Rated Current<br>额定电流         | Refer to standard electrical characteristics list<br>参考标准特性规格表 | 5Pcs Passed |
| Temperature Rise Test<br>温升测试 | 40℃ max.(Δt)<br>40度最大  | 5Pcs Passed |

#### Electrical Performance Test

|  |  |   |
|--|--|---|
| Solder Heat Resistance<br>耐焊锡热             | Appearance: No significant abnormality.<br>Inductance change: Within ±20%.<br>外观: 无显著异常。<br>电感值: 变异性在初始值±20%以内。  | Preheat: 150℃, 60sec.<br>Solder: H63A<br>Solder temperature: 260±5℃<br>Flux for lead free: rosin<br>Dip time: 10±0.5sec.<br>预热: 150℃, 60sec.<br>锡炉温度: 260±5℃.<br>时间: 10±0.5sec<br>助焊剂: rosin.<br>  |
| Solderability Test<br>端面焊锡性                | More than 90% of the terminal electrode.<br>Should be covered with solder.<br>端电极之锡覆盖面达90%以上。  | Preheat: 125±25℃, 60sec.<br>Solder: H63A.<br>Solder temperature: 230±5℃<br>Flux for lead free: rosin<br>Dip time: 4±1sec.<br>预热: 125±25℃, 60sec.<br>锡炉温度: 230±5℃<br>时间: 4±1sec.<br>助焊剂: rosin.<br> |
| High Temperature Resistance Test<br>高温放置测试 | Appearance: no damage.<br>Inductance: within ±20% of initial value<br>NO disconnection or short circuit.<br>外观不能破损。<br>电感值: 变异值在初始值20%以内。<br>电性无短路或断线。 | Temperature: 85±5℃.<br>Applied current: rated current.<br>Duration: 500 hrs.  |



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## SMT Power Inductors- PSG6020HC

### 电气特性

### TYPICAL ELECTRICAL CHARACTERISTICS

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