



深圳市富尔电子科技有限公司

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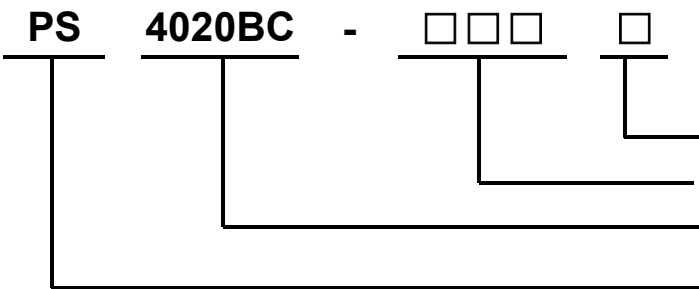
<http://www.frcoil.com>
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SMT Power Inductors-PS4020BC

产品型号

PRODUCT IDENTIFICATION



Tolerance
Inductance
Product specification
PO-SMT Power Inductors

Tolerance:

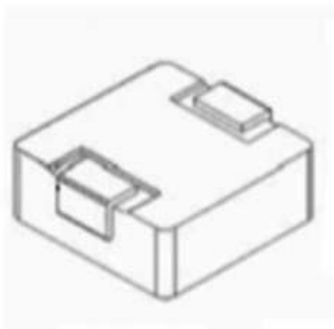
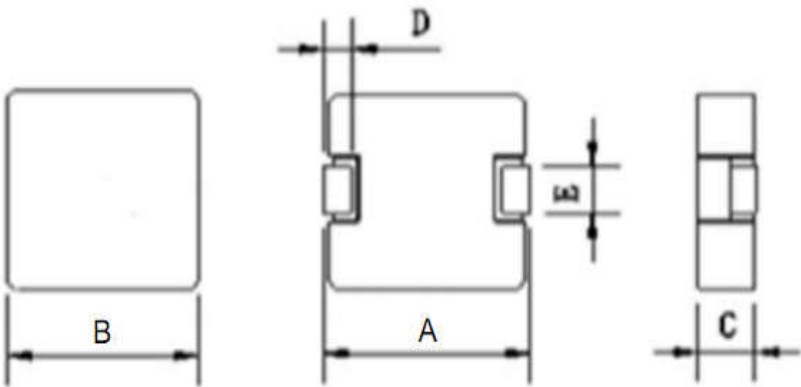
Code	Tolerance
102	1.0 μ H
103	10.0 μ H
104	100.0 μ H
105	1000.0 μ H
106	10000.0 μ H

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



A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
4.49 \pm 0.4	4.06 \pm 0.3	2.0max	1.1 \pm 0.3	1.5 \pm 0.3



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规格特性

SPECIFICATIONS

Part number	Inductance (uH)	Percent tolerance	DCR max (MOhms)	Isat(A) 30%drop	Irms(A) 40°C rise
PS4020BC-R10M	0.1 @ 100KHz	20	4.5	23	12
PS4020BC-R22M	0.22 @ 100KHz	20	7	18	11
PS4020BC-R33M	0.33 @ 100KHz	20	10.5	15	8
PS4020BC-R47M	0.47 @ 100KHz	20	14	9.5	7
PS4020BC-R56M	0.56 @ 100KHz	20	18	9	6.5
PS4020BC-R68M	0.68 @ 100KHz	20	20	8	6
PS4020BC-1R0M	1.0 @ 100KHz	20	30	7	4.5
PS4020BC-1R5M	1.5 @ 100KHz	20	36	6	4
PS4020BC-2R2M	2.2 @ 100KHz	20	58	5	3
PS4020BC-3R3M	3.3 @ 100KHz	20	87	3	2.5
PS4020BC-4R7M	4.7 @ 100KHz	20	140	3	2.2
PS4020BC-6R8M	6.8 @ 100KHz	20	175	2.5	2.4
PS4020BC-100M	10 @ 100KHz	20	200	1.8	1.5



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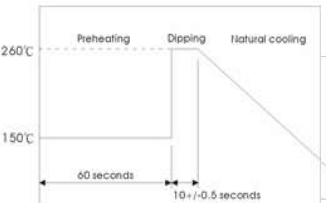
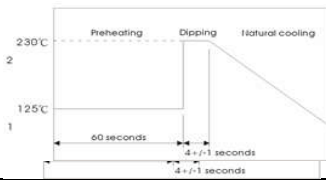
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电气特性 TYPICAL ELECTRICAL CHARACTERISTICS

PASSED MEASUREMENT / 通过如下测量

ITEM	Test condition	Test Result
Operating Temperature 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

Electrical Performance Test

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.



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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 $\pm 20\%$ 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: $40\pm 2^{\circ}\text{C}$. Applied current:rated current. Duration:500 hrs. Humidity:90~95%.
Thermal shock 热冲击试验	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。	Condition for 1 cycle Step 1:- $25\pm 2^{\circ}\text{C}$, 30 ± 3 min. Step 2:Room temperature within 15 min. Step 3:+ $85\pm 5^{\circ}\text{C}$, 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 $\pm 20\%$ 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	Humidity 90~95%RH. Temperature: $40\pm 5^{\circ}\text{C}$. Applied current:rated current. Duration:500 \pm 12hrs. Measured at room temperature after placing for 2 to 3hrs. 湿度: 90~95%RH. 温度: $40\pm 5^{\circ}\text{C}$. 须加电流: 额定电流。 放置时间: 500 \pm 12hrs. 测试结束于室温放置2~3小时, 始可测试电气特性。