

贴片数字功放电感

Digital Power Amplifier Inductance (SMD)



特性

Characteristics

低磁损，低阻抗，寄生电容小

Low magnetic loss, low ESR, small parasitic capacitance

磁屏蔽结构：抗电磁干扰(EMI)性能强

Magnetic shielded structure: excellent resistance to electromagnetic interference (EMI)

磁路闭合，超低蜂鸣噪音，可高密度贴装

Closed magnetic circuit, ultra low buzz noise, can high density mount

采用低损耗材料和无氧铜线材实现低失真和高音质

Realized low distortion and high sound quality by using low loss material and Oxygen Free Copper (OFC) wire

应用

Application

Class D 音器

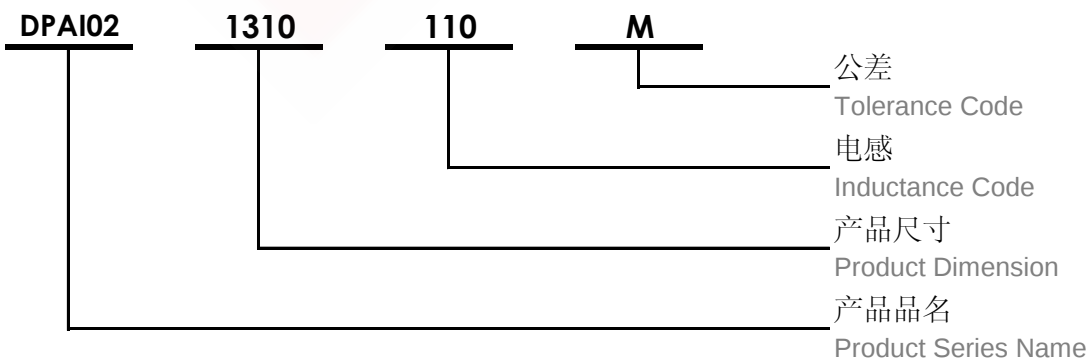
Class D audio amplifiers

数字扩音器

Digital amplifiers

产品品名介绍

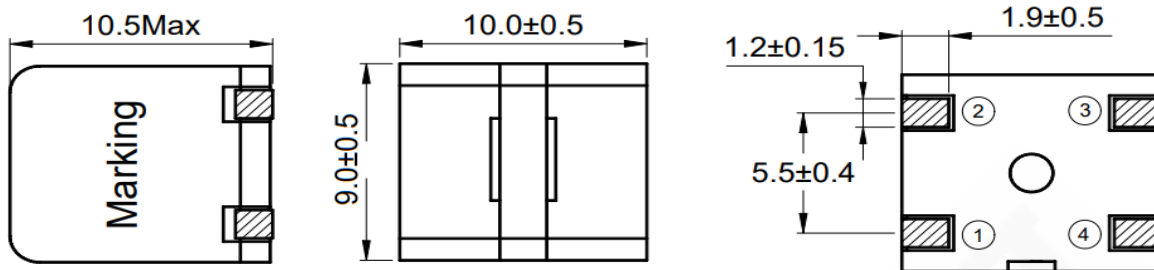
Product Number Structure





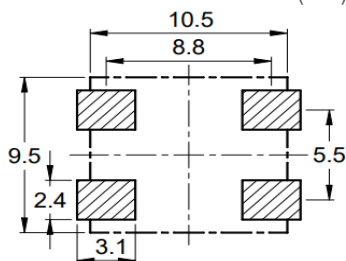
尺寸

Dimension (mm)



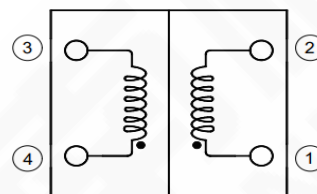
焊盘推荐

Land Pattern Recommended (mm)



示意图

Schematics



电性特性

Electrical Properties

型号 Part No.	电感 Inductance μH	温升电流 Rated Current $I_R \text{ max } 40^\circ\text{C (A)}$	直流电阻 DC Resistance DCRmax (m Ω)	饱和电流 Saturation Current $I_{\text{sat typ (A)}}$	包装数量 Packing Qty pcs
DPAI02-0910A-6R8M	6.80 $\pm 20\%$	5.00	19.00	7.80	1,800
DPAI02-0910A-8R2M	8.20 $\pm 20\%$	5.00	19.00	7.00	1,800
DPAI02-0910A-100M	10.00 $\pm 20\%$	4.80	21.00	5.60	1,800
DPAI02-0910A-150M	15.00 $\pm 20\%$	3.50	36.00	4.80	1,800
DPAI02-0910A-220M	22.00 $\pm 20\%$	3.50	36.00	3.30	1,800

测试状态

Test Condition

☆ 电感测试条件为 1.0 kHz/ 1.0 V

Inductance measure condition at 1.0 kHz/ 1.0 V

☆ 工作温度: $-40^\circ\text{C} \sim +125^\circ\text{C}$ Operating Temperature: $-40^\circ\text{C} \sim +125^\circ\text{C}$

☆ 饱和电流: 电感值下降其初始值的20%时所加载的实际直流电流值

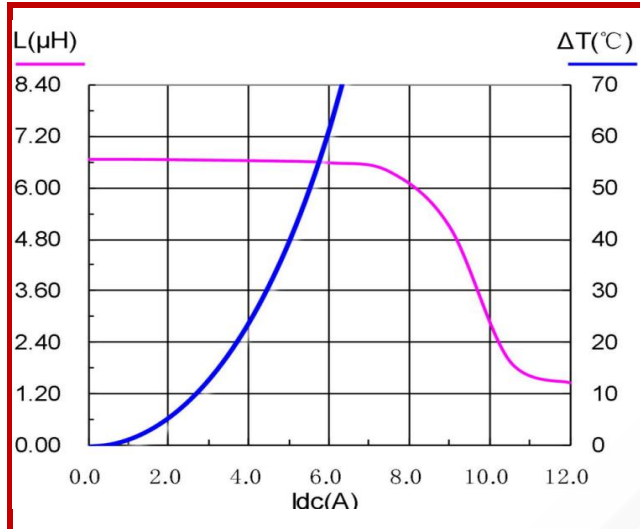
Saturation Current: The actual value of DC current when the inductance drop 20% of initial value



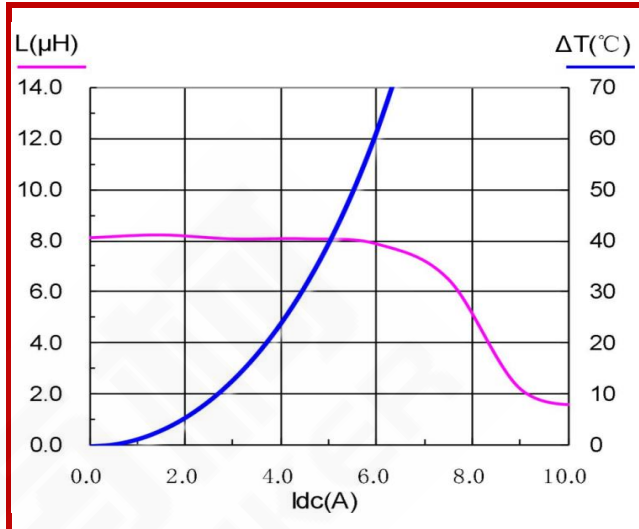
典型电感与电流特性

Typical Inductance vs. Current Characteristics

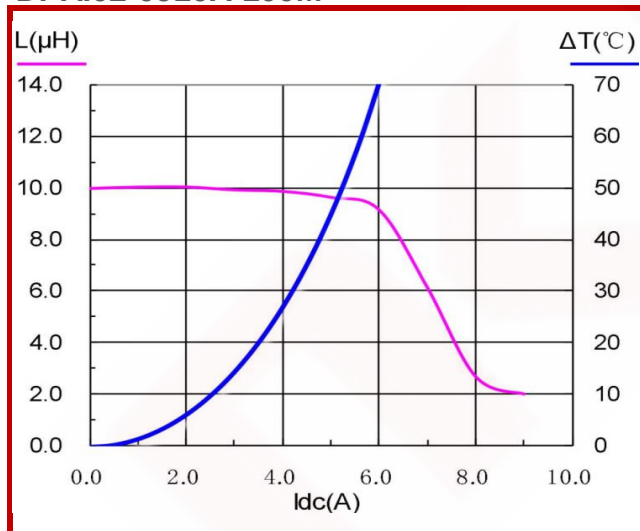
DPAI02-0910A-6R8M



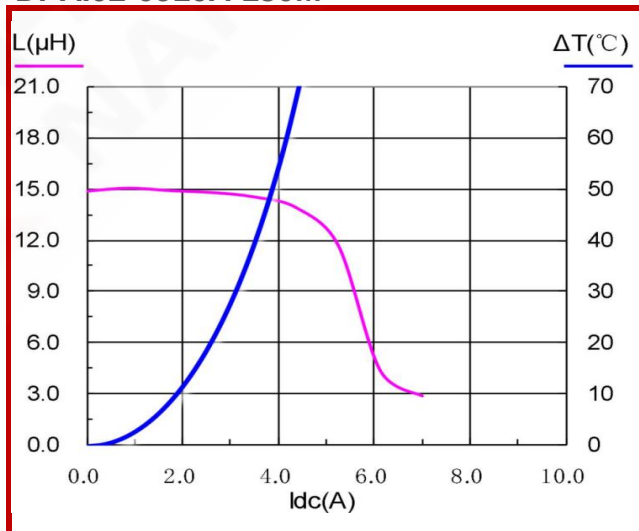
DPAI02-0910A-8R2M



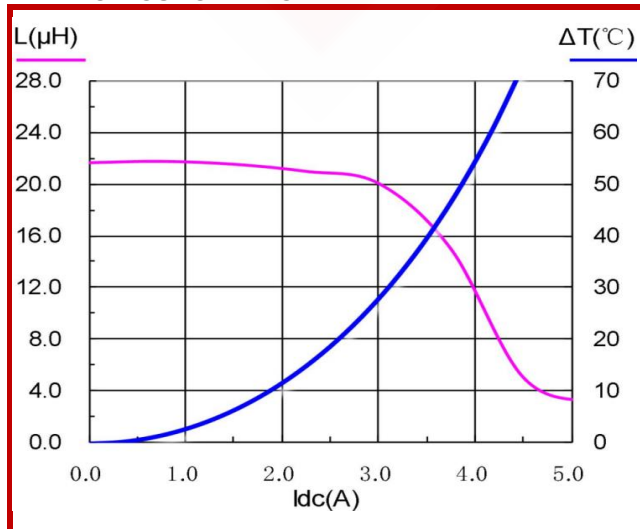
DPAI02-0910A-100M



DPAI02-0910A-150M



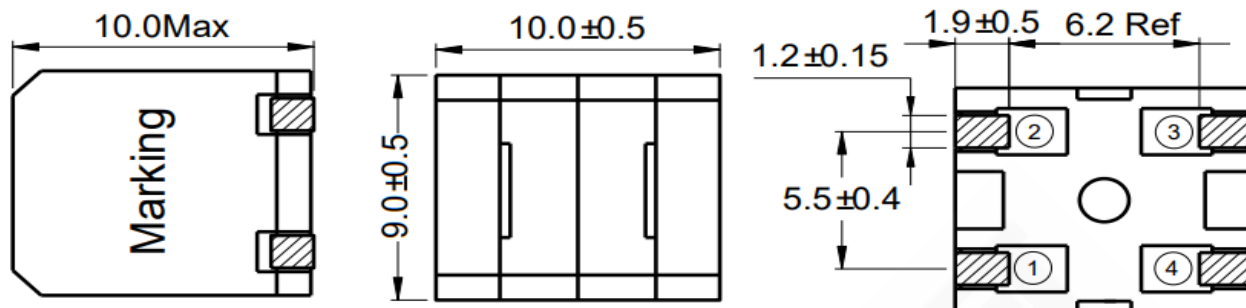
DPAI02-0910A-220M





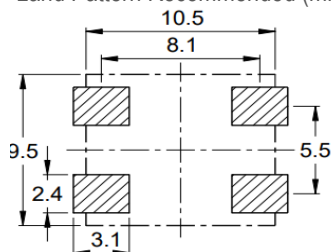
尺寸

Dimension (mm)



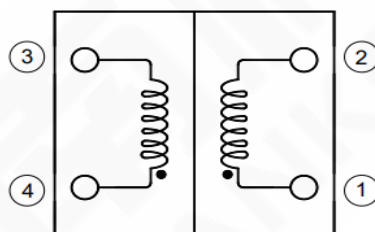
焊盘推荐

Land Pattern Recommended (mm)



示意图

Schematics



电性特性

Electrical Properties

型号 Part No.	电感 Inductance μH	温升电流 Rated Current I _R max 40°C (A)	直流电阻 DC Resistance DCR _{max} (mΩ)	饱和电流 Saturation Current I _{sat} typ (A)	包装数量 Packing Qty pcs
DPAI02-0910B-3R3M	3.30 ±20%	6.00	11.50	10.50	1,800
DPAI02-0910B-4R7M	4.70 ±20%	5.00	18.70	10.00	1,800
DPAI02-0910B-6R8M	6.80 ±20%	5.00	18.70	8.70	1,800
DPAI02-0910B-8R2M	8.20 ±20%	5.00	18.70	6.80	1,800
DPAI02-0910B-100M	10.00 ±20%	5.00	18.70	5.60	1,800
DPAI02-0910B-120M	12.00 ±20%	4.80	24.00	5.00	1,800
DPAI02-0910B-150M	15.00 ±20%	3.50	39.20	4.60	1,800
DPAI02-0910B-220M	22.00 ±20%	2.50	51.60	3.20	1,800

测试状态

Test Condition

☆ 电感测试条件为 100kHz, 1.0V(3R3-8R2), 1.0kHz, 1.0V(100-220)

Inductance measure condition at 100kHz, 1.0V(3R3-8R2), 1.0kHz, 1.0V(100-220)

☆ 工作温度: -40°C ~ +125°C

Operating Temperature: -40°C ~ +125°C

☆ 饱和电流: 电感值下降其初始值的25%时所加载的实际直流电流值

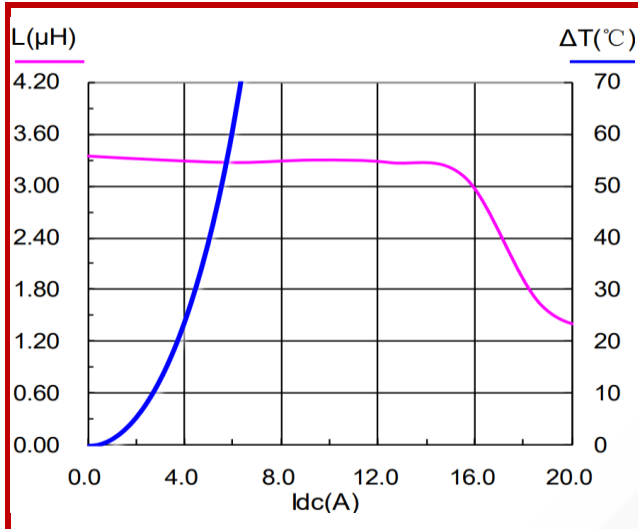
Saturation Current: The actual value of DC current when the inductance drop 25% of initial value



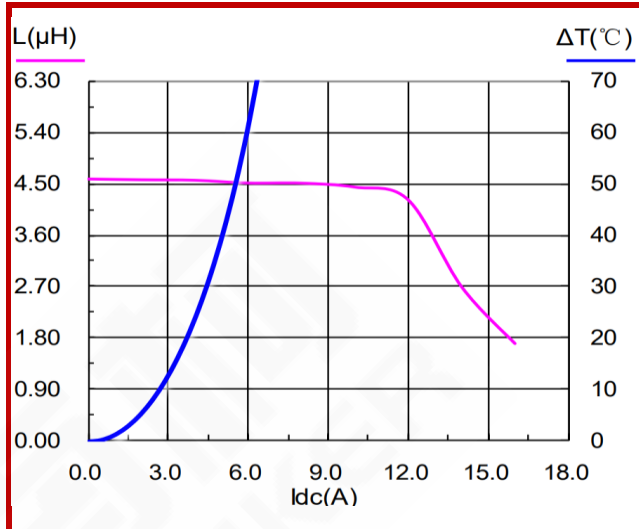
饱和电流VS温升电流曲线

Saturation current vs temperature rise current curve

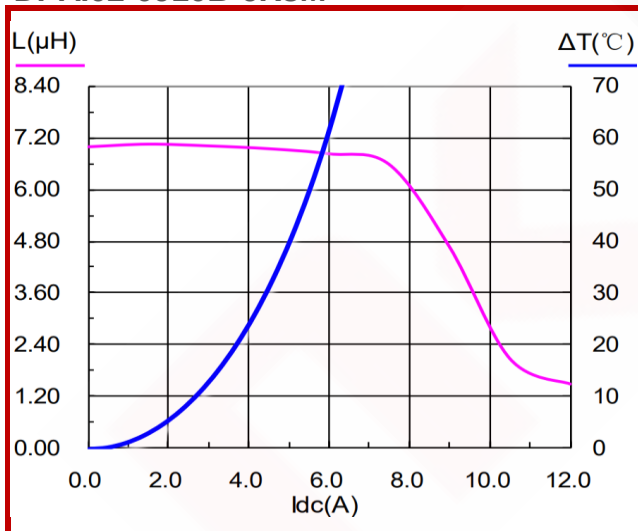
DPAI02-0910B-3R3M



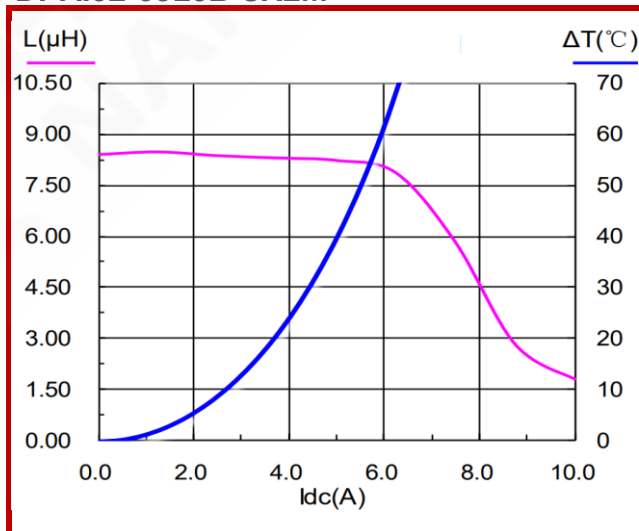
DPAI02-0910B-4R7M



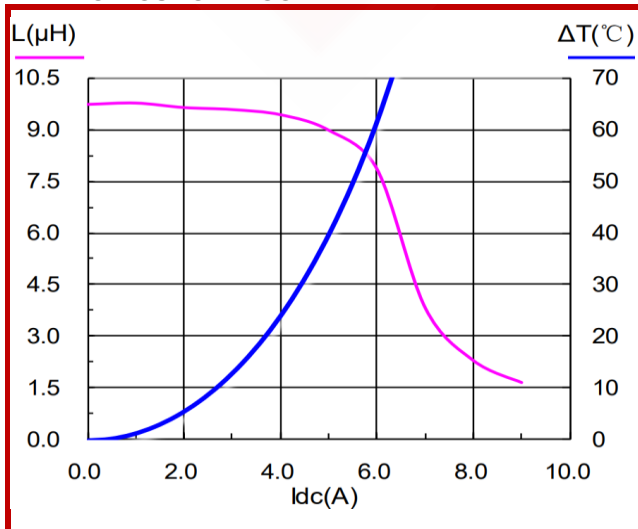
DPAI02-0910B-6R8M



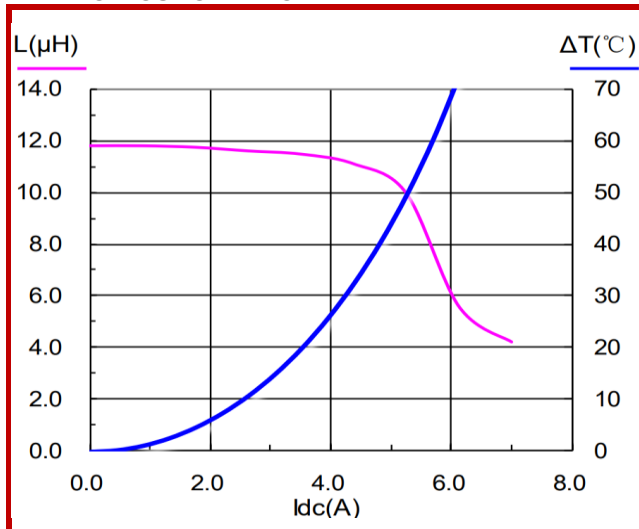
DPAI02-0910B-8R2M



DPAI02-0910B-100M



DPAI02-0910B-120M

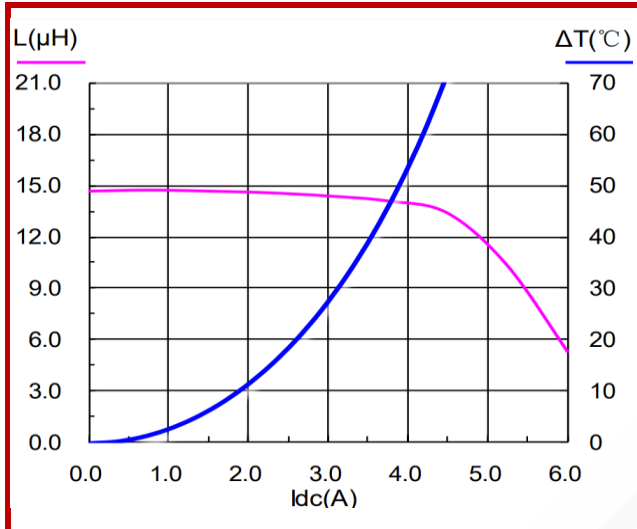




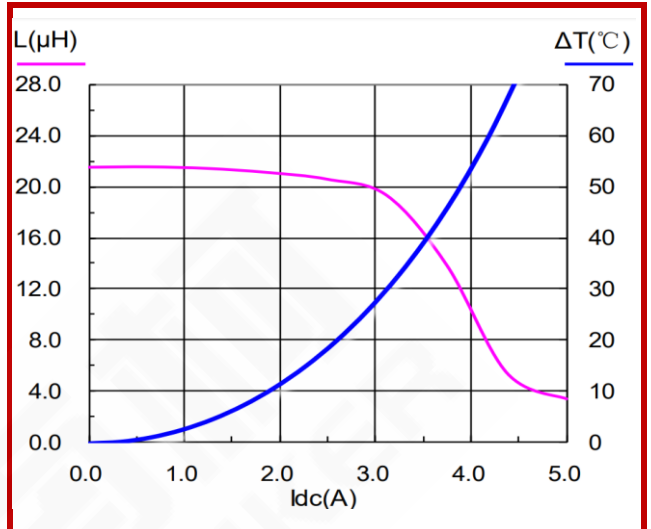
饱和电流VS温升电流曲线

Saturation current vs temperature rise current curve

DPAI02-0910B-150M



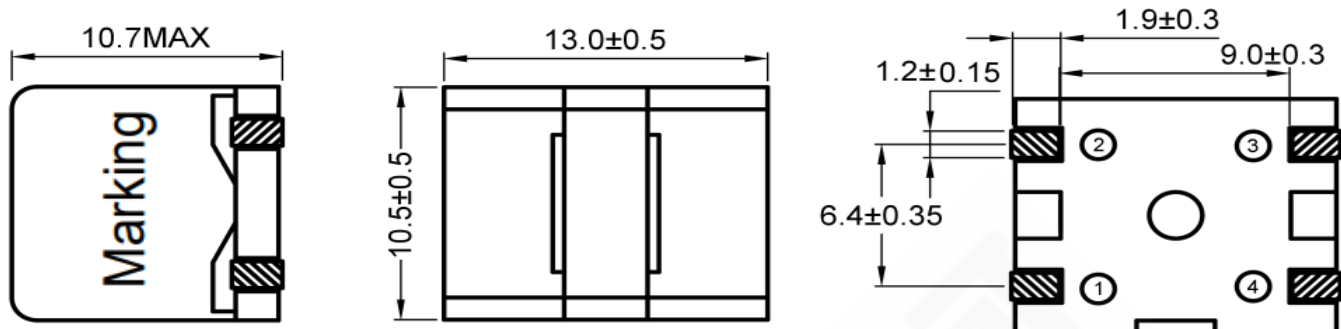
DPAI02-0910B-220M





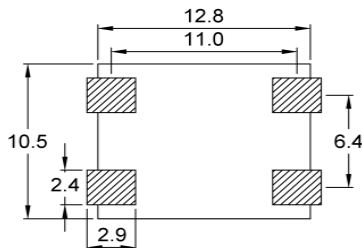
尺寸

Dimension (mm)



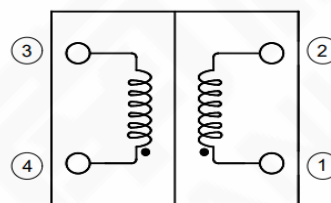
焊盘推荐

Land Pattern Recommended (mm)



示意图

Schematics



电性特性

Electrical Properties

型号 Part No.	电感 Inductance μH	温升电流 Rated Current I _R max 40°C (A)	直流电阻 DC Resistance DCR _{max} (mΩ)	饱和电流 Saturation Current I _{sat} typ (A)	包装数量 Packing Qty pcs
DPAI02-1013A-100M	10.00 ±20%	4.20	18.00	7.10	1,800
DPAI02-1013A-150M	15.00 ±20%	3.80	23.00	5.30	1,800
DPAI02-1013A-220M	22.00 ±20%	3.00	38.00	4.30	1,800

测试状态

Test Condition

☆ 电感测试条件为 100 kHz/ 1.0V

Inductance measure condition at 100 kHz/ 1.0V

☆ 工作温度: -40°C ~ +125°C

Operating Temperature: -40°C ~ +125°C

☆ 饱和电流: 电感值下降其初始值的25%时所加载的实际直流电流值

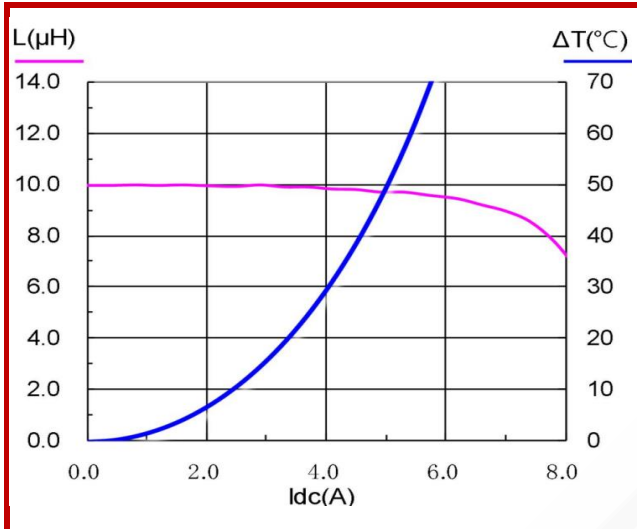
Saturation Current: The actual value of DC current when the inductance drop 25% of initial value



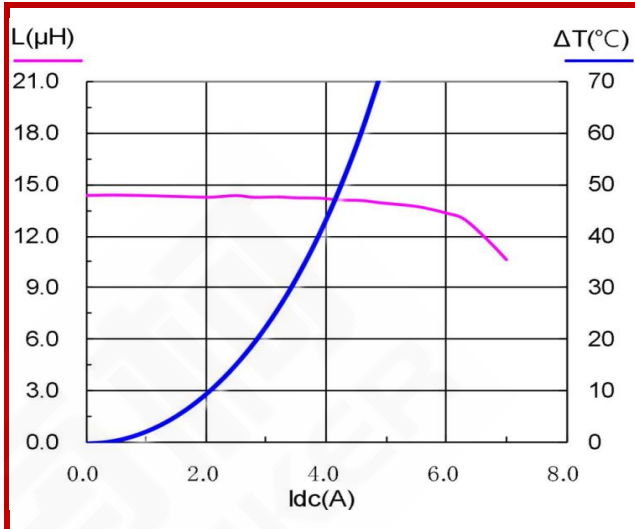
饱和电流VS温升电流曲线

Saturation current vs temperature rise current curve

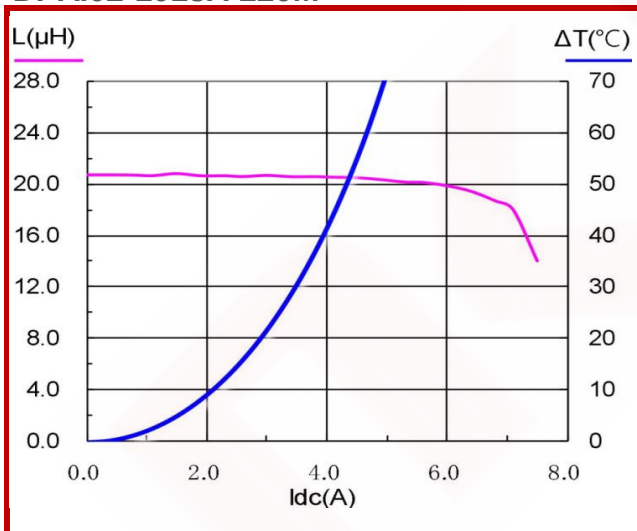
DPAI02-1013A-100M



DPAI02-1013A-150M



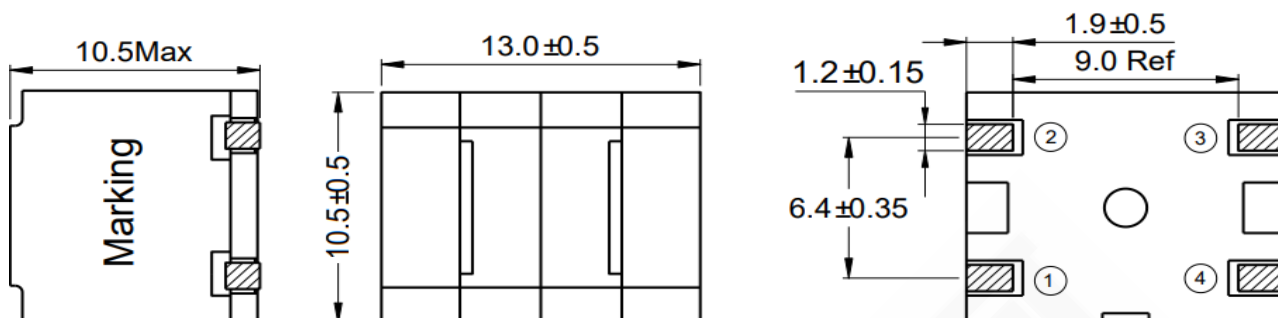
DPAI02-1013A-220M





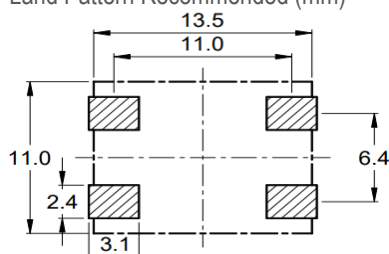
尺寸

Dimension (mm)



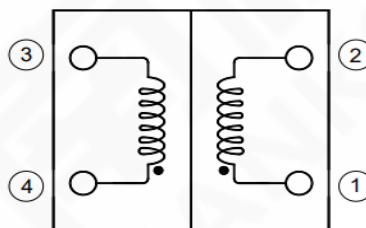
焊盘推荐

Land Pattern Recommended (mm)



示意图

Schematics



电性特性

Electrical Properties

型号 Part No.	电感 Inductance μH	温升电流 Rated Current I _R max 40°C (A)	直流电阻 DC Resistance DCR _{max} (mΩ)	饱和电流 Saturation Current I _{sat} typ (A)	包装数量 Packing Qty pcs
DPAI02-1013B-3R3M	3.30 ±20%	5.10	11.00	12.00	1,800
DPAI02-1013B-4R7M	4.70 ±20%	4.40	16.00	16.00	1,800
DPAI02-1013B-6R8M	6.80 ±20%	4.40	16.00	11.00	1,800
DPAI02-1013B-8R2M	8.20 ±20%	4.40	16.00	7.20	1,800
DPAI02-1013B-100M	10.00 ±20%	4.20	18.00	7.10	1,800
DPAI02-1013B-120M	12.00 ±20%	4.00	20.00	6.00	1,800
DPAI02-1013B-150M	15.00 ±20%	3.80	23.00	5.30	1,800
DPAI02-1013B-180M	18.00 ±20%	3.80	23.00	4.60	1,800
DPAI02-1013B-220M	22.00 ±20%	3.00	38.00	4.30	1,800

测试状态

Test Condition

☆ 电感测试条件为 100kHz, 1.0V(3R3-8R2), 1.0kHz, 1.0V(100-220)

Inductance measure condition at 100kHz, 1.0V(3R3-8R2), 1.0kHz, 1.0V(100-220)

☆ 工作温度: -40°C ~ +125°C

Operating Temperature: -40°C ~ +125°C

☆ 饱和电流: 电感值下降其初始值的25%时所加载的实际直流电流值

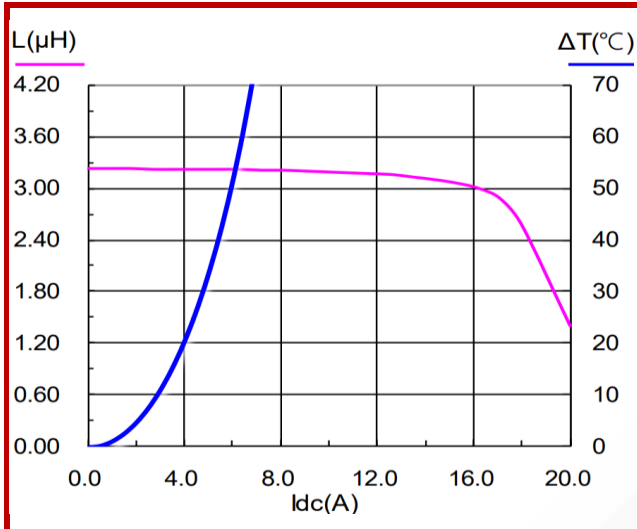
Saturation Current: The actual value of DC current when the inductance drop 25% of initial value



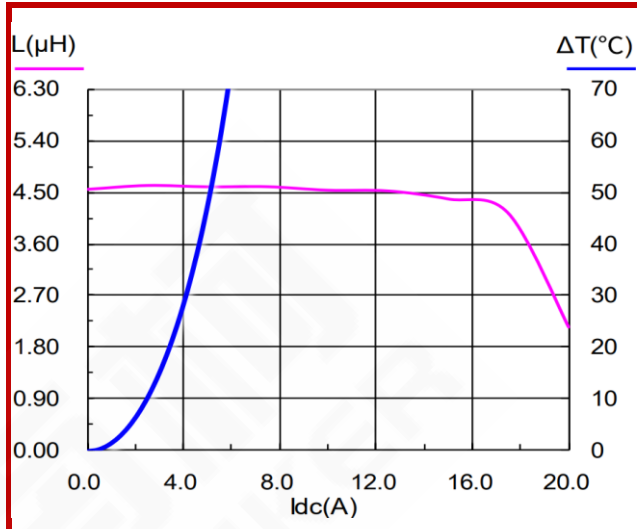
饱和电流VS温升电流曲线

Saturation current vs temperature rise current curve

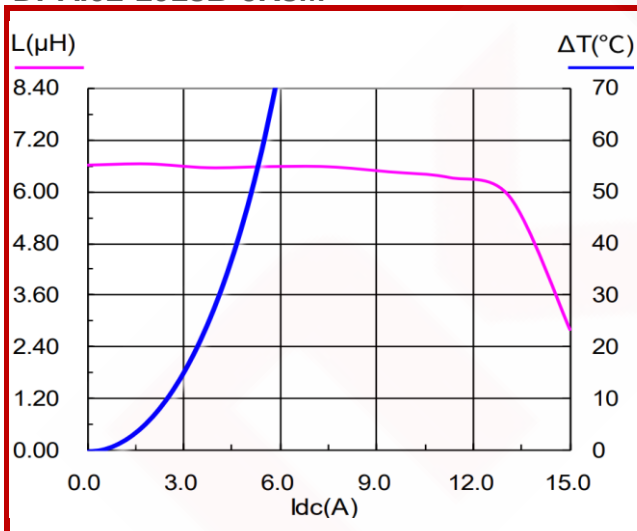
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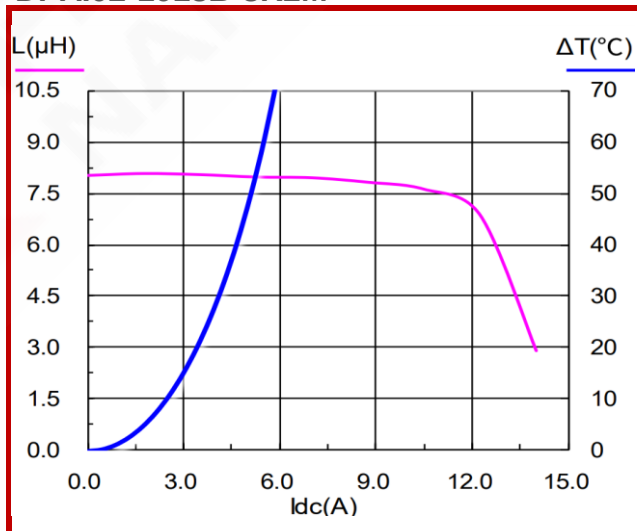
DPAI02-1013B-4R7M



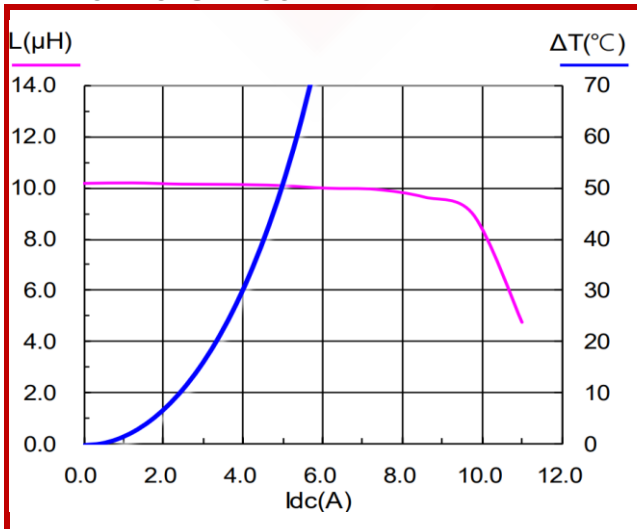
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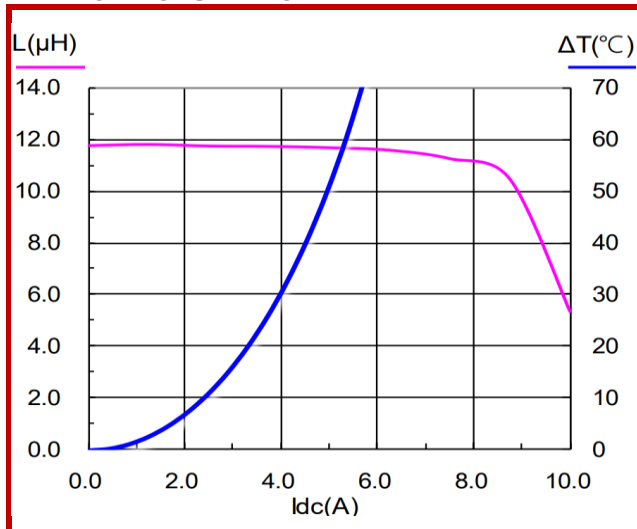
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DPAI02-1013B-100M



DPAI02-1013B-120M

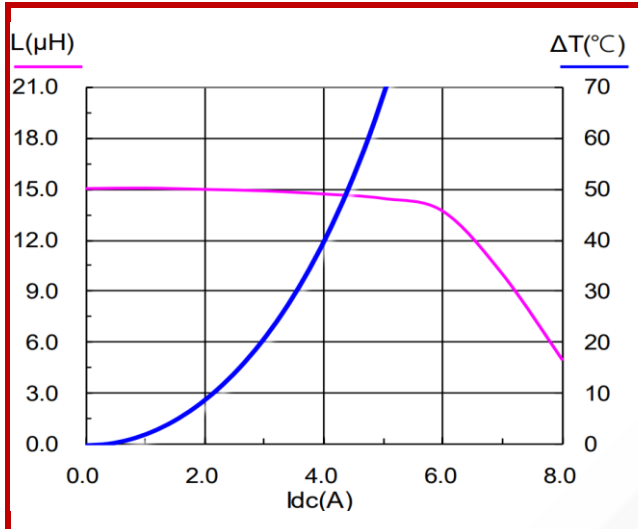




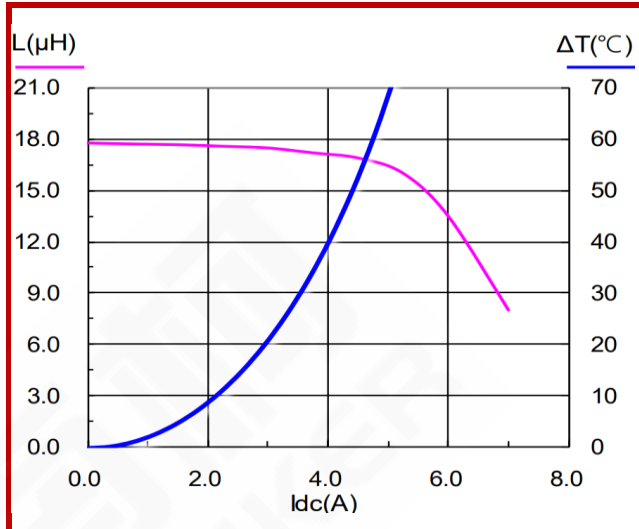
饱和电流VS温升电流曲线

Saturation current vs temperature rise current curve

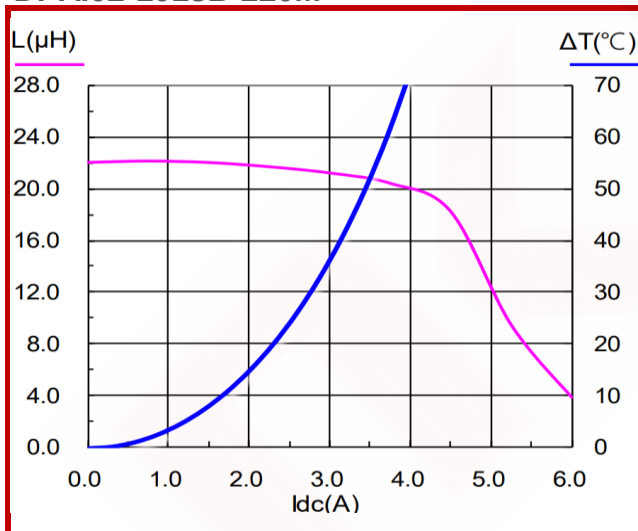
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DPAI02-1013B-180M



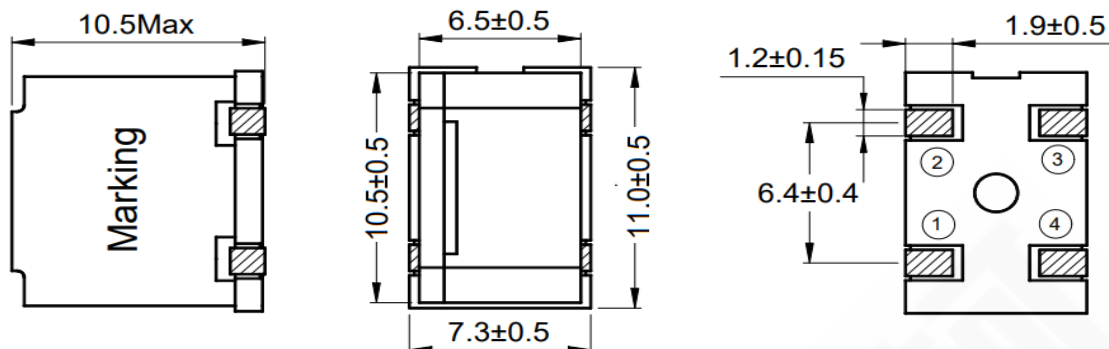
DPAI02-1013B-220M





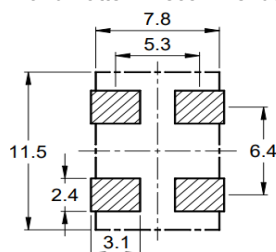
尺寸

Dimension (mm)



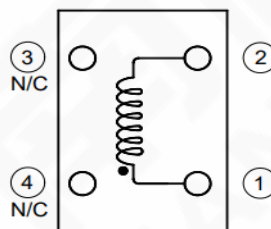
焊盘推荐

Land Pattern Recommended (mm)



示意图

Schematics



电性特性

Electrical Properties

型号 Part No.	电感 Inductance μH	温升电流 Rated Current $I_R \text{ max } 40^\circ\text{C (A)}$	直流电阻 DC Resistance DCRmax (m Ω)	饱和电流 Saturation Current $I_{\text{sat typ (A)}}$	包装数量 Packing Qty pcs
DPAI02-1065-6R8M	6.80 $\pm 20\%$	6.70	12.00	7.80	2,400
DPAI02-1065-8R2M	8.20 $\pm 20\%$	6.50	13.50	7.00	2,400
DPAI02-1065-100M	10.00 $\pm 20\%$	6.30	14.50	5.70	2,400
DPAI02-1065-120M	12.00 $\pm 20\%$	6.00	17.00	5.50	2,400
DPAI02-1065-150M	15.00 $\pm 20\%$	4.50	25.00	5.50	2,400
DPAI02-1065-180M	18.00 $\pm 20\%$	4.50	25.00	5.00	2,400
DPAI02-1065-220M	22.00 $\pm 20\%$	4.00	28.00	4.40	2,400

测试状态

Test Condition

☆ 电感测试条件为 1.0kHz, 1.0V

Inductance measure condition at 1.0kHz, 1.0V

☆ 工作温度: $-40^\circ\text{C} \sim +125^\circ\text{C}$ Operating Temperature: $-40^\circ\text{C} \sim +125^\circ\text{C}$

☆ 饱和电流: 电感值下降其初始值的25%时所加载的实际直流电流值

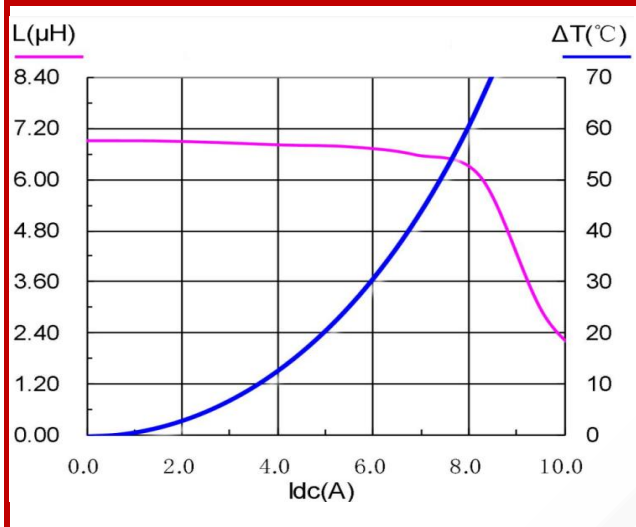
Saturation Current: The actual value of DC current when the inductance drop 25% of initial value



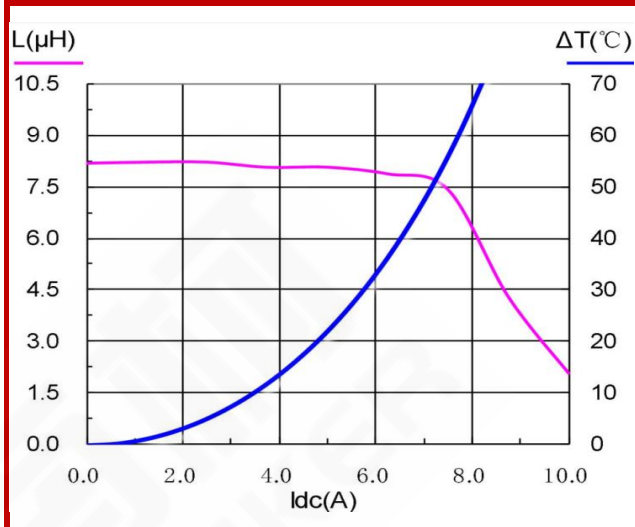
饱和电流VS温升电流曲线

Saturation current vs temperature rise current curve

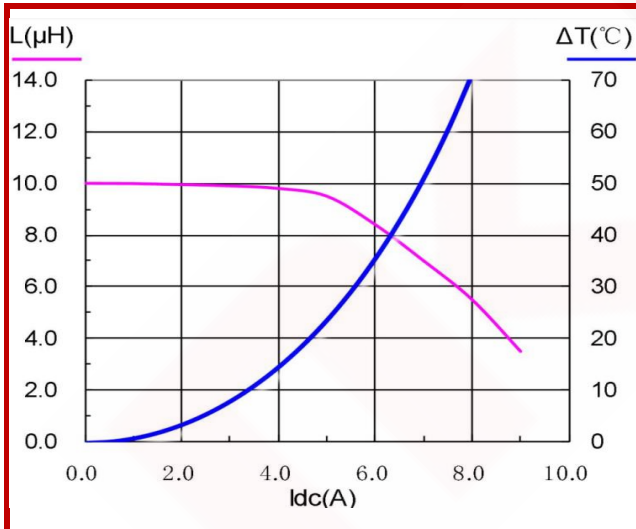
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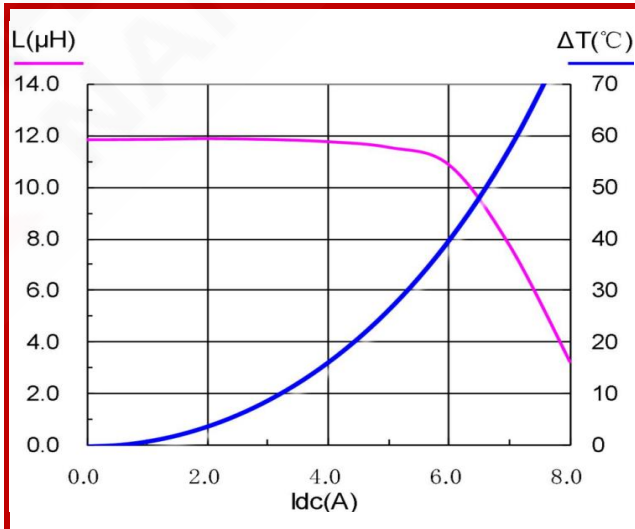
DPAI02-1065-8R2M



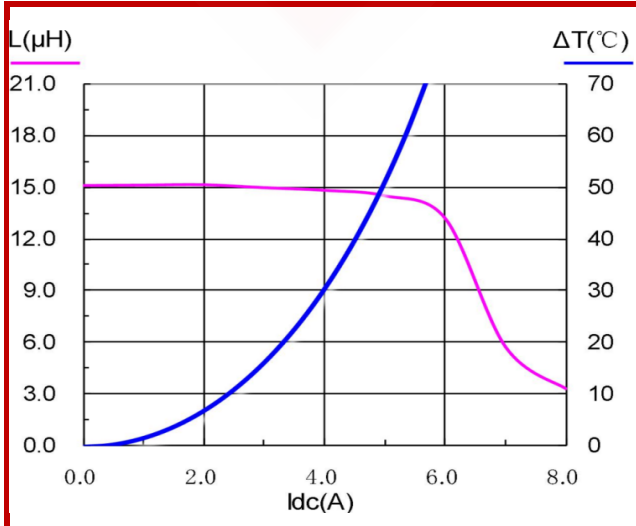
DPAI02-1065-100M



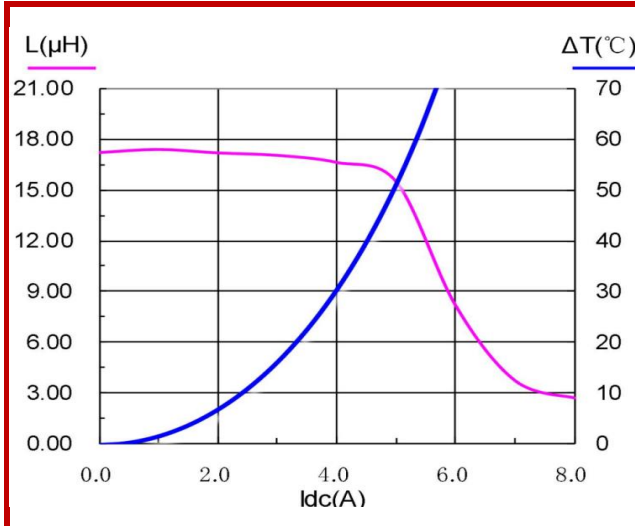
DPAI02-1065-120M



DPAI02-1065-150M



DPAI02-1065-180M

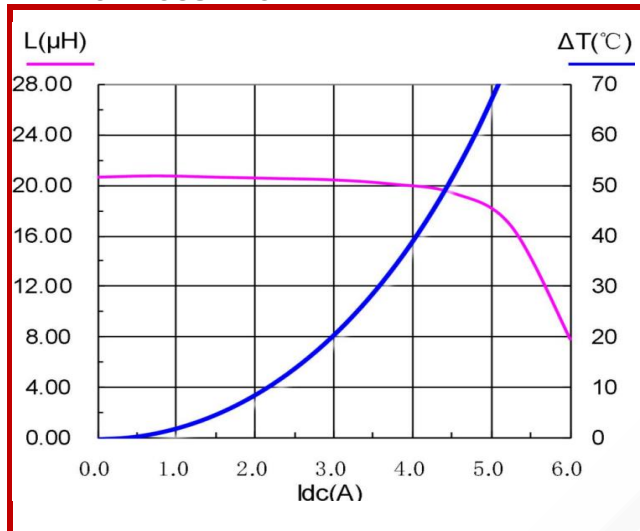




饱和电流VS温升电流曲线

Saturation current vs temperature rise current curve

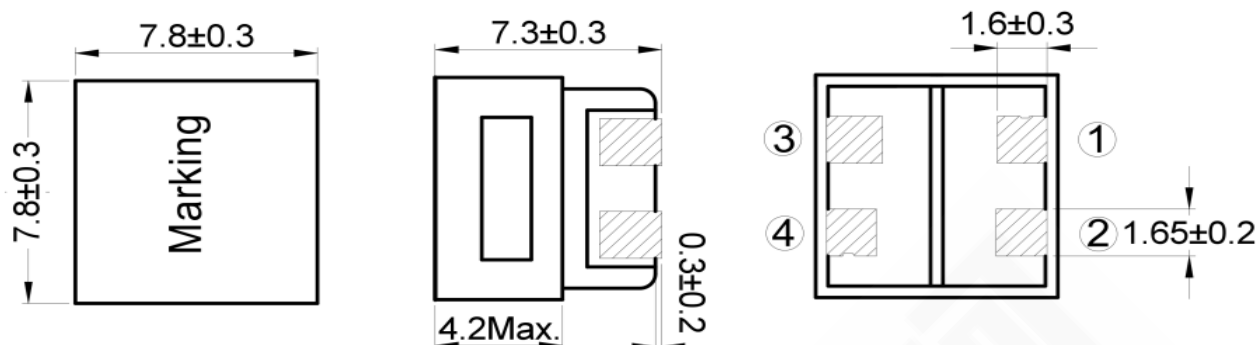
DPAI02-1065-220M





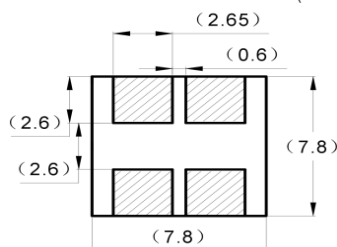
尺寸

Dimension (mm)



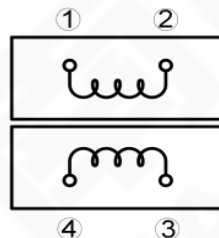
焊盘推荐

Land Pattern Recommended (mm)



示意图

Schematics



电性特性

Electrical Properties

型号 Part No.	电感 Inductance μH	温升电流 Rated Current $I_R \text{ max } 40^\circ\text{C (A)}$	直流电阻 DC Resistance DCRmax (m Ω)	饱和电流 Saturation Current $I_{\text{sat typ (A)}}$	包装数量 Packing Qty pcs
DPAI02-0707-4R7M	4.70 $\pm 20\%$	5.50	27.50	12.00	2,400
DPAI02-0707-5R6M	5.60 $\pm 20\%$	5.00	36.00	9.50	2,400
DPAI02-0707-6R8M	6.80 $\pm 20\%$	4.50	43.00	8.80	2,400
DPAI02-0707-8R2M	8.20 $\pm 20\%$	4.00	46.00	7.50	2,400
DPAI02-0707-100M	10.00 $\pm 20\%$	3.50	55.00	6.50	2,400
DPAI02-0707-150M	15.00 $\pm 20\%$	3.00	95.00	5.50	2,400
DPAI02-0707-220M	22.00 $\pm 20\%$	2.40	134.00	4.30	2,400

测试状态

Test Condition

☆ 电感测试条件为 100kHz, 1.0V

Inductance measure condition at 100kHz, 1.0V

☆ 工作温度: $-40^\circ\text{C} \sim +125^\circ\text{C}$ Operating Temperature: $-40^\circ\text{C} \sim +125^\circ\text{C}$

☆ 饱和电流: 电感值下降其初始值的25%时所加载的实际直流电流值

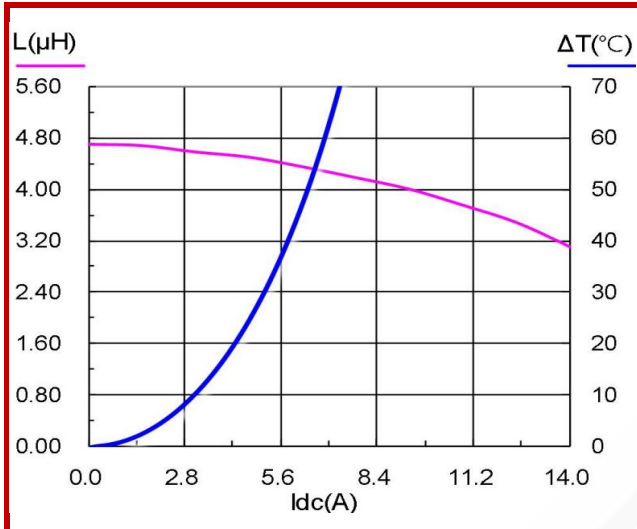
Saturation Current: The actual value of DC current when the inductance drop 25% of initial value



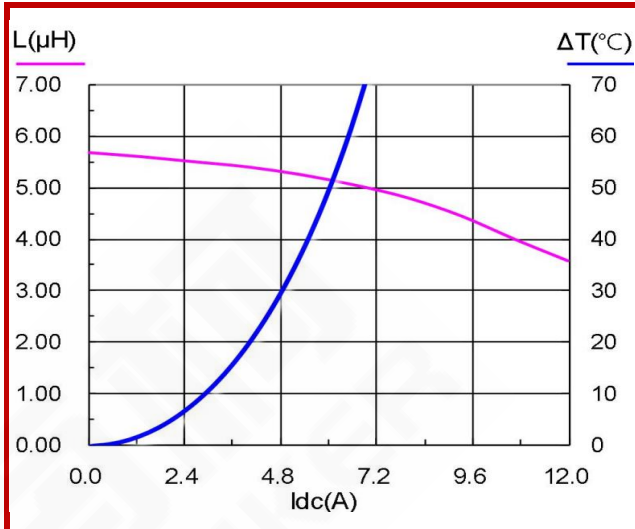
饱和电流VS温升电流曲线

Saturation current vs temperature rise current curve

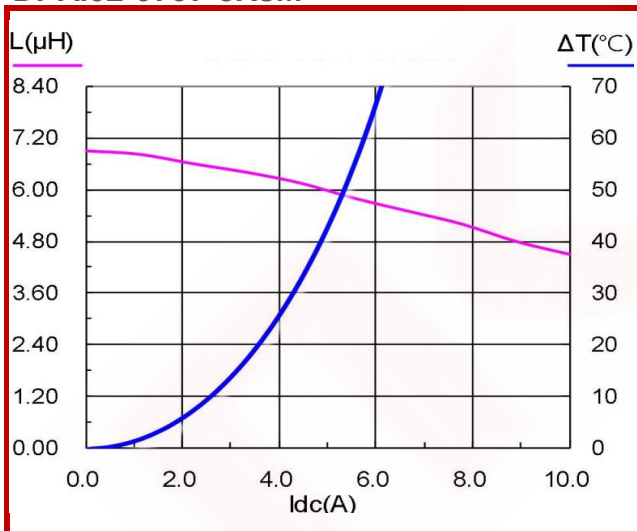
DPAI02-0707-4R7M



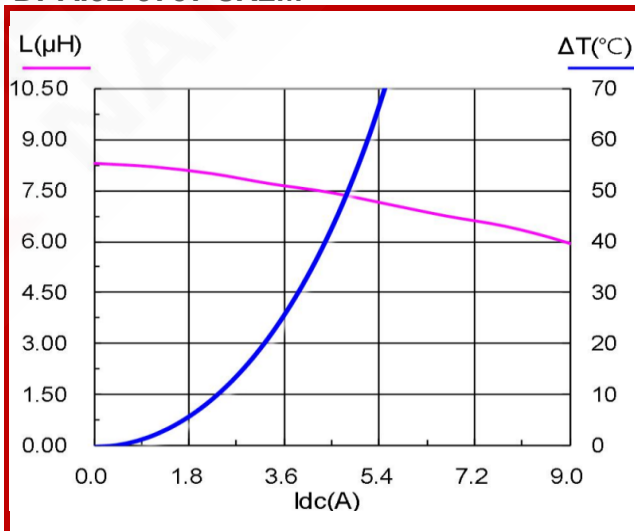
DPAI02-0707-5R6M



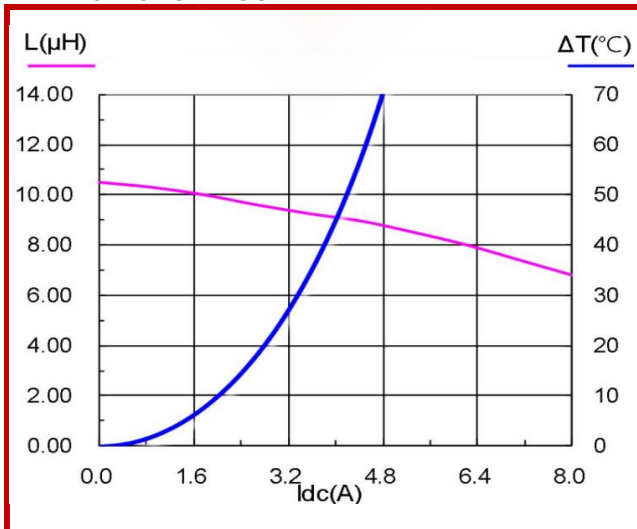
DPAI02-0707-6R8M



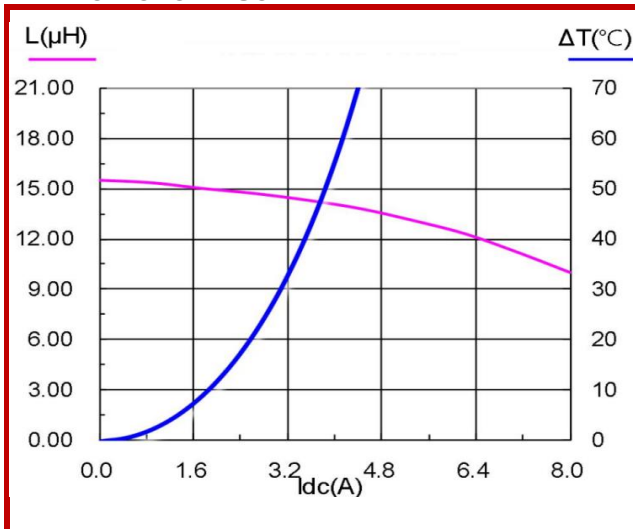
DPAI02-0707-8R2M



DPAI02-0707-100M



DPAI02-0707-150M

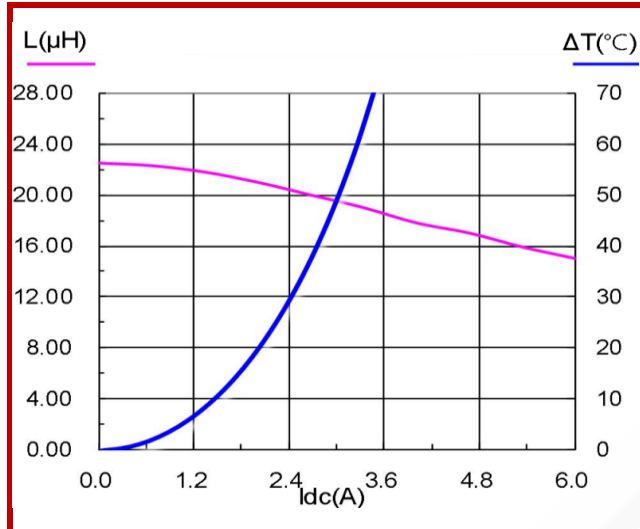




饱和电流VS温升电流曲线

Saturation current vs temperature rise current curve

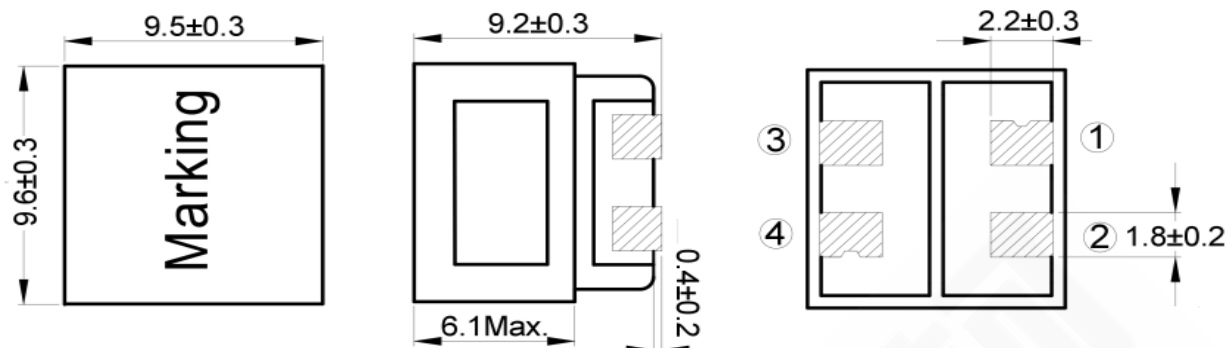
DPAI02-0707-220M





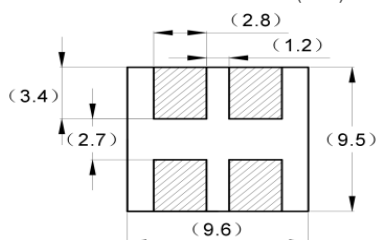
尺寸

Dimension (mm)



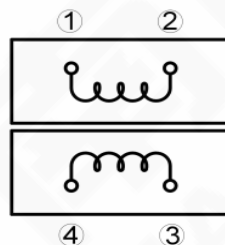
焊盘推荐

Land Pattern Recommended (mm)



示意图

Schematics



电性特性

Electrical Properties

型号 Part No.	电感 Inductance μH	温升电流 Rated Current I_R max 40°C (A)	直流电阻 DC Resistance DCRmax (m Ω)	饱和电流 Saturation Current I_{sat} typ (A)	包装数量 Packing Qty pcs
DPAI02-0909-1R5M	1.50 $\pm 20\%$	13.00	8.20	25.00	2,100
DPAI02-0909-2R2M	2.20 $\pm 20\%$	12.00	9.50	17.50	2,100
DPAI02-0909-3R3M	3.30 $\pm 20\%$	10.50	17.00	17.00	2,100
DPAI02-0909-4R7M	4.70 $\pm 20\%$	9.00	22.00	14.00	2,100
DPAI02-0909-5R6M	5.60 $\pm 20\%$	7.50	25.00	10.50	2,100
DPAI02-0909-6R8M	6.80 $\pm 20\%$	7.00	27.50	9.70	2,100
DPAI02-0909-8R2M	8.20 $\pm 20\%$	5.80	35.00	8.50	2,100
DPAI02-0909-100M	10.00 $\pm 20\%$	5.30	40.00	8.00	2,100
DPAI02-0909-150M	15.00 $\pm 20\%$	4.50	67.00	6.60	2,100
DPAI02-0909-220M	22.00 $\pm 20\%$	3.50	98.00	5.00	2,100
DPAI02-0909-330M	33.00 $\pm 20\%$	2.80	157.00	4.20	2,100

测试状态

Test Condition

☆ 电感测试条件为 100kHz, 1.0V

Inductance measure condition at 100kHz, 1.0V

☆ 工作温度: -40°C ~ +125°C

Operating Temperature: -40°C ~ +125°C

☆ 饱和电流: 电感值下降其初始值的25%时所加载的实际直流电流值

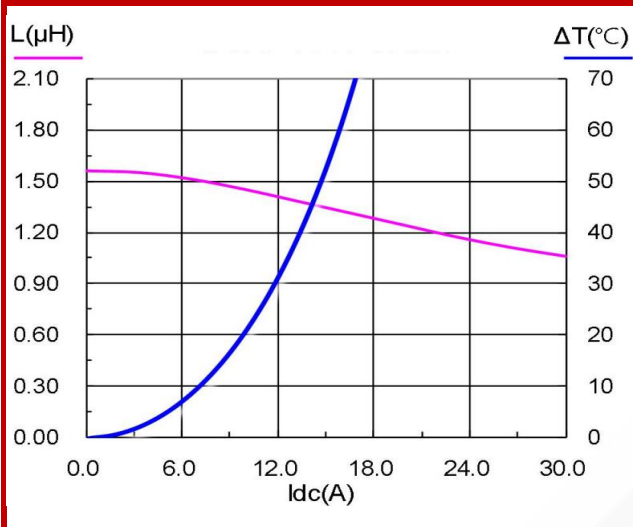
Saturation Current: The actual value of DC current when the inductance drop 25% of initial value



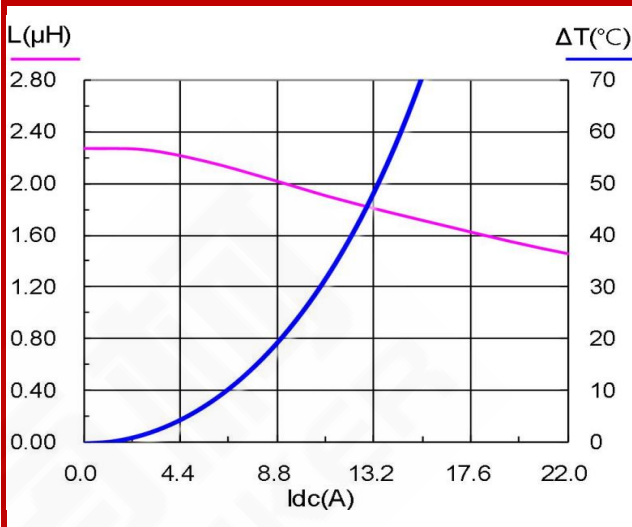
饱和电流VS温升电流曲线

Saturation current vs temperature rise current curve

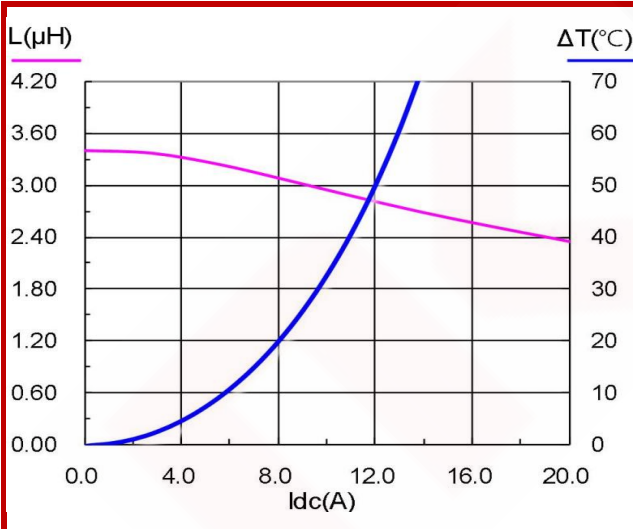
DPAI02-0909-1R5M



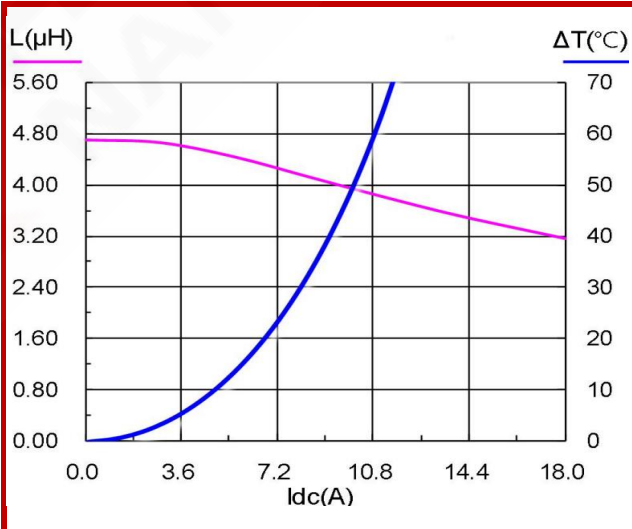
DPAI02-0909-2R2M



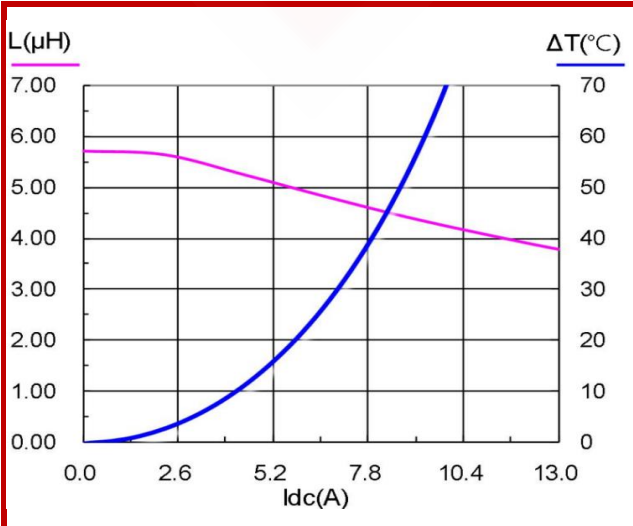
DPAI02-0909-3R3M



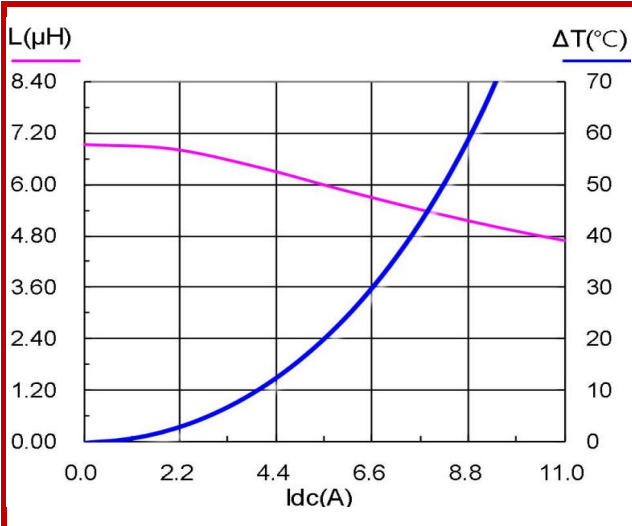
DPAI02-0909-4R7M



DPAI02-0909-5R6M



DPAI02-0909-6R8M

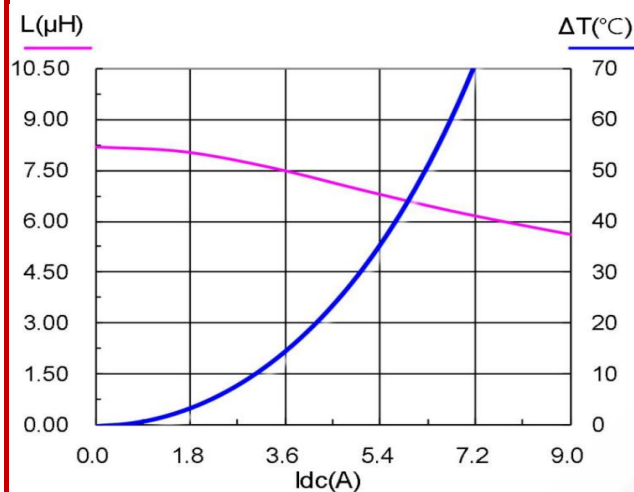




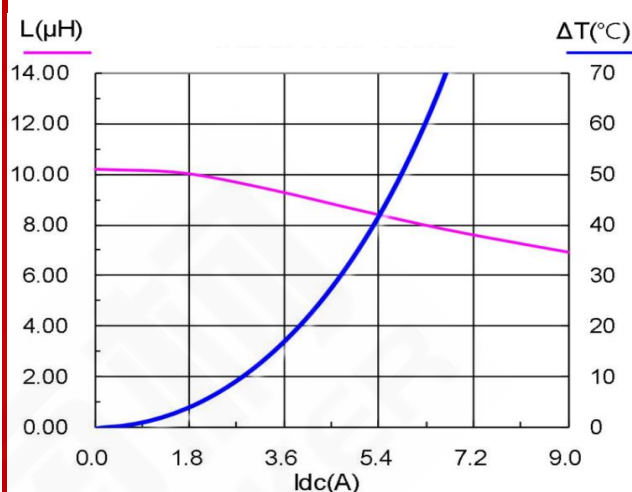
饱和电流VS温升电流曲线

Saturation current vs temperature rise current curve

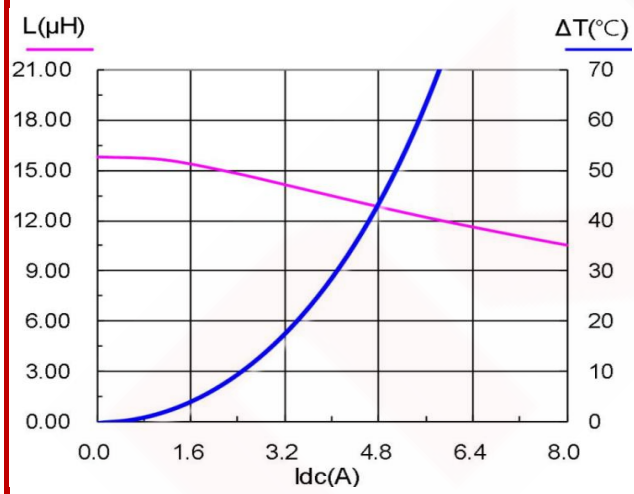
DPAI02-0909-8R2M



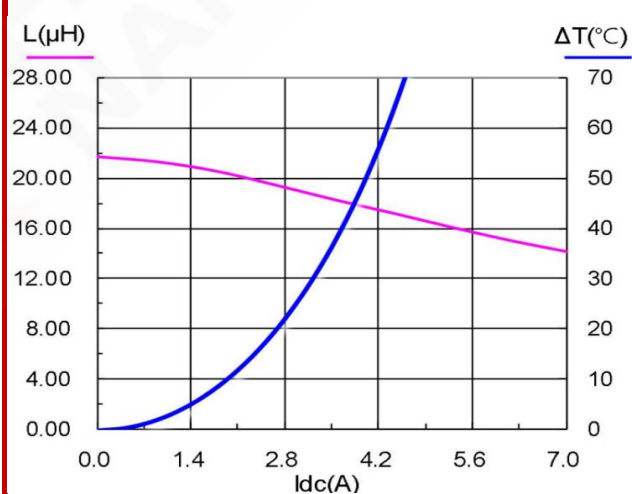
DPAI02-0909-100M



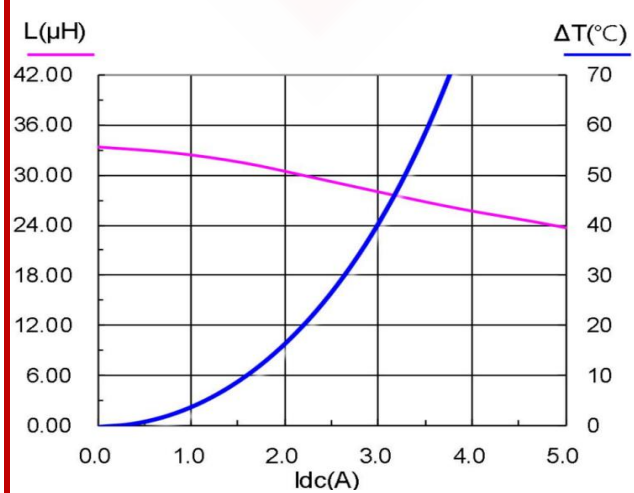
DPAI02-0909-150M



DPAI02-0909-220M



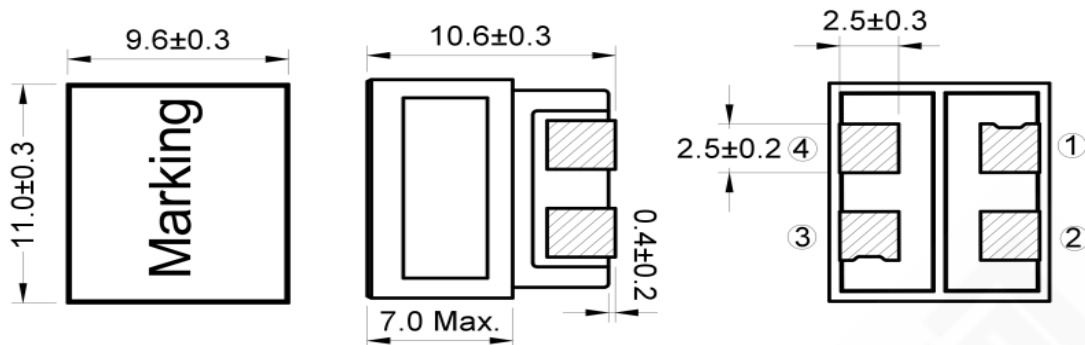
DPAI02-0909-330M





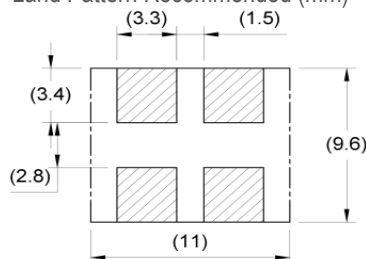
尺寸

Dimension (mm)



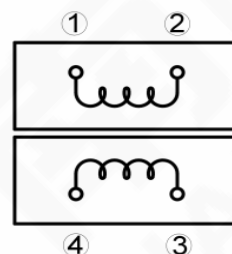
焊盘推荐

Land Pattern Recommended (mm)



示意图

Schematics



电性特性

Electrical Properties

型号 Part No.	电感 Inductance μH	温升电流 Rated Current I _R max 40°C (A)	直流电阻 DC Resistance DCR _{max} (mΩ)	饱和电流 Saturation Current I _{sat} typ (A)	包装数量 Packing Qty pcs
DPAI02-1111-3R3M	3.30 ±20%	11.00	12.50	16.00	1,800
DPAI02-1111-100M	10.00 ±20%	7.60	28.00	9.50	1,800
DPAI02-1111-150M	15.00 ±20%	6.00	40.00	8.00	1,800
DPAI02-1111-220M	22.00 ±20%	4.90	62.00	6.00	1,800
DPAI02-1111-330M	33.00 ±20%	4.00	93.00	5.00	1,800
DPAI02-1111-470M	47.00 ±20%	3.20	136.00	4.50	1,800

测试状态

Test Condition

☆ 电感测试条件为 100kHz, 1.0V

Inductance measure condition at 100kHz, 1.0V

☆ 工作温度: -40°C ~ +125°C

Operating Temperature: -40°C ~ +125°C

☆ 饱和电流: 电感值下降其初始值的25%时所加载的实际直流电流值

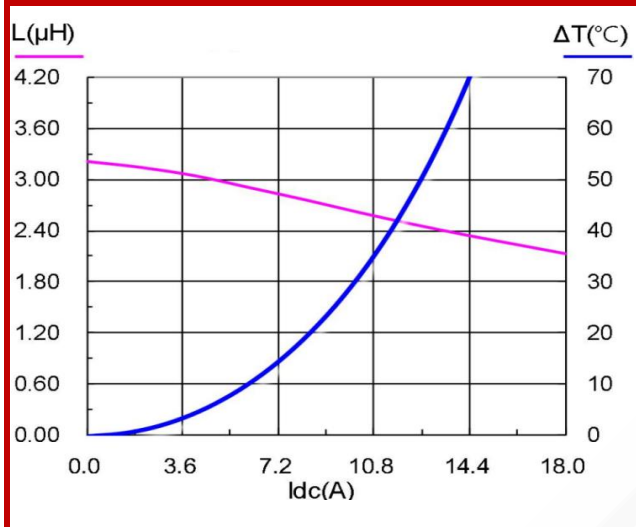
Saturation Current: The actual value of DC current when the inductance drop 25% of initial value



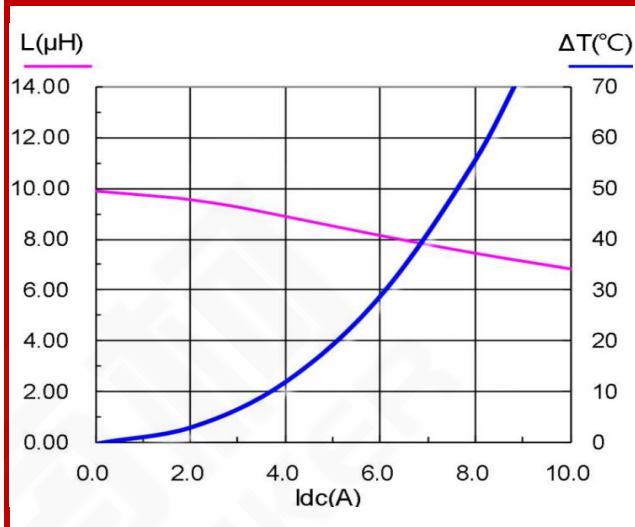
饱和电流VS温升电流曲线

Saturation current vs temperature rise current curve

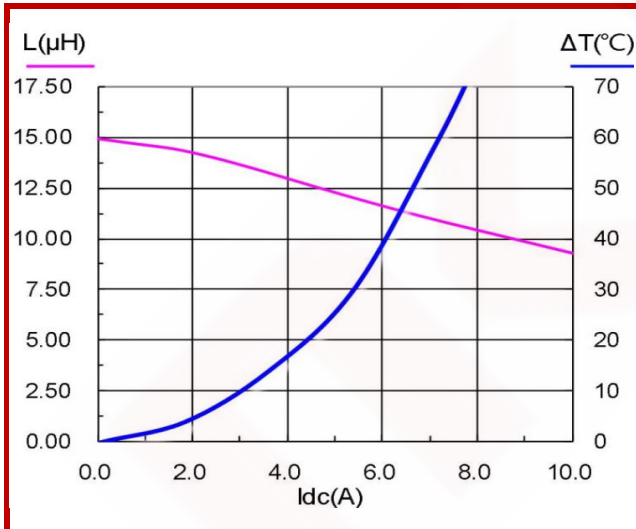
DPAI02-1111-3R3M



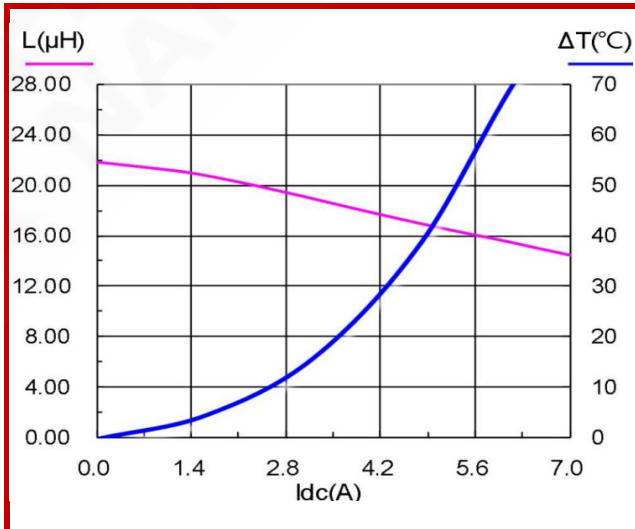
DPAI02-1111-100M



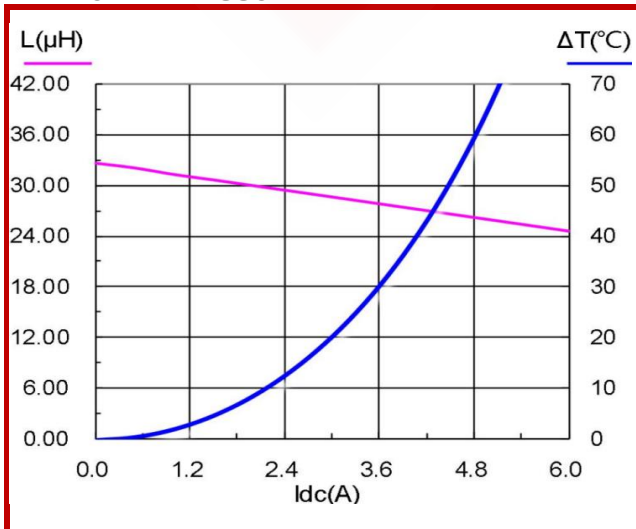
DPAI02-1111-150M



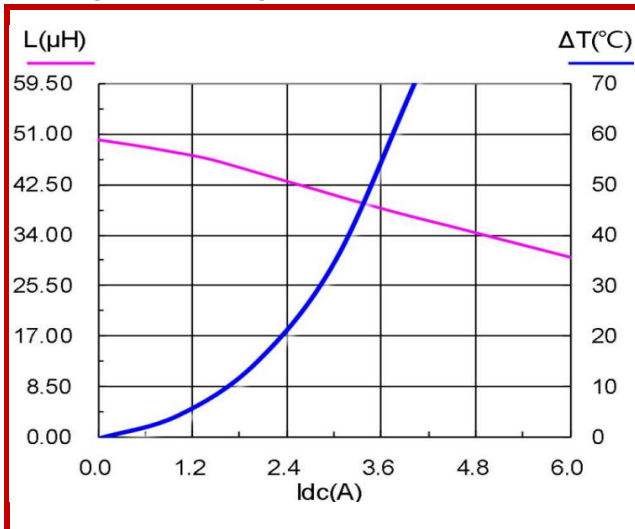
DPAI02-1111-220M



DPAI02-1111-330M



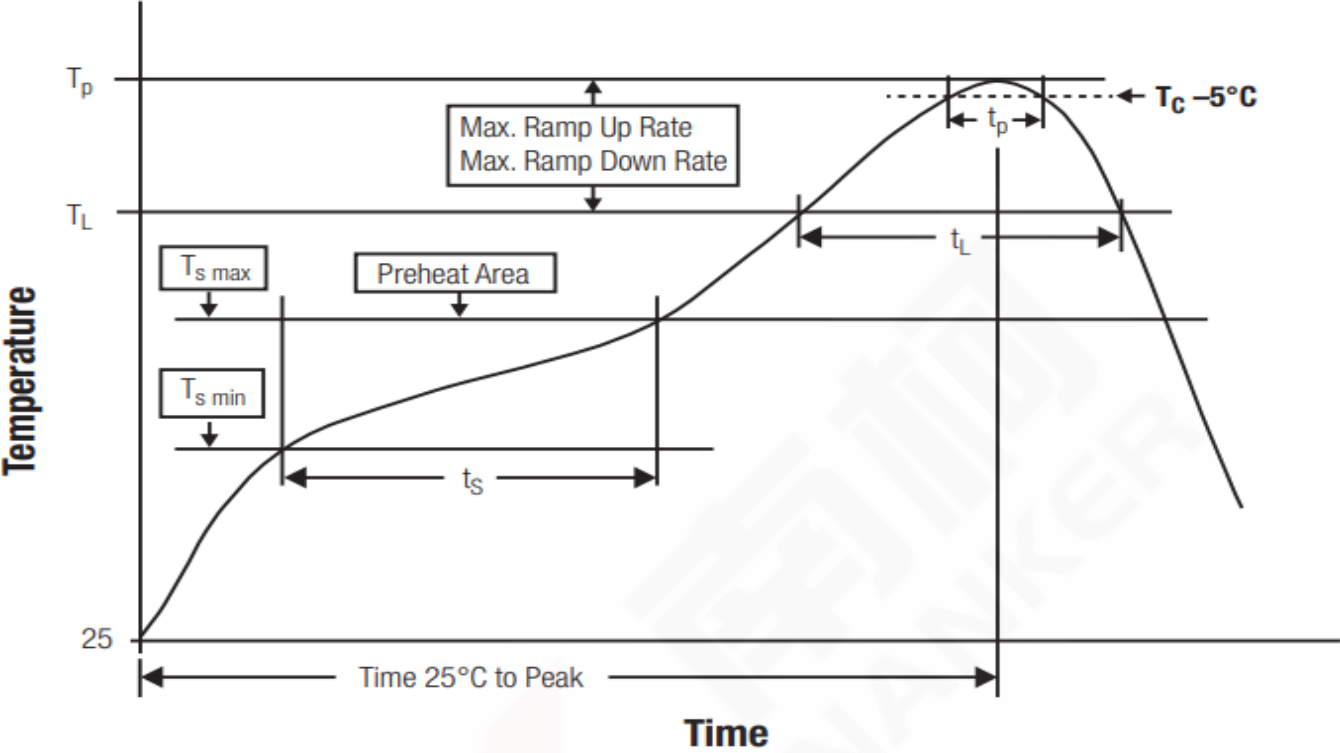
DPAI02-1111-470M





回流焊曲线图

Classification Reflow Profile for SMT Components



封装体峰值温度(Tp)分类

Classification Reflow Soldering Profile:

	封装厚度 Package Thickness	封装体积 Package Volume		
		<350 mm ³	350~2,000 mm ³	>2,000 mm ³
无铅装配 PB-Free Assembly	<1.60mm	260°C	260°C	260°C
	1.60~2.50mm	260°C	250°C	245°C
	>2.50mm	260°C	245°C	245°C

- ◆ 回流焊参照标准 IPC/JEDEC J-STD-020D。
Reflow is refer to standard IPC/JEDEC J-STD-020D.