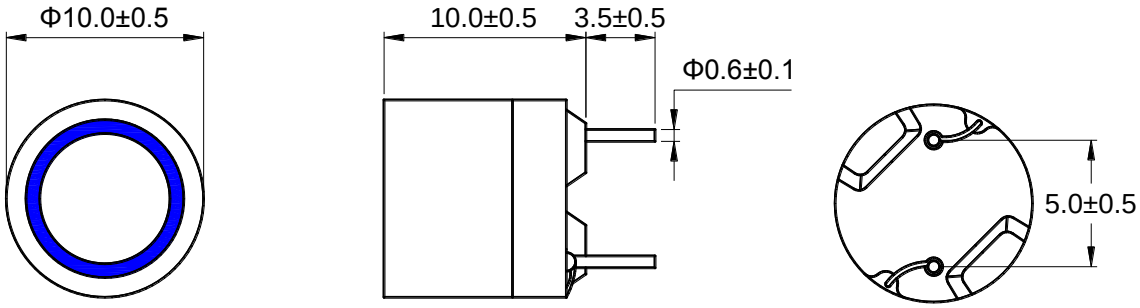
CODACA科达嘉

DIP Inductor
- PRD1010 Series

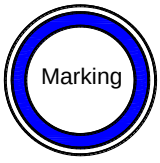
Outline:
产品概要

- Magnetically shielded construction, high reliability.
  磁屏蔽结构，高可靠性。
- Lead free product, RoHS compliant.
  无铅产品，符合 RoHS 指令。
- Widely used in power supply, DC-DC converter, computer and peripherals, air-condition, displayer, home electric appliance, and etc.
  适用于电源，DC-DC 转换器，电脑及其外围设备，空调，显示器，家用电器等。
- Operating temperature : -40℃ ～ +125℃ (Including coil's temperature rise)
  工作温度：-40℃ ～ +125℃ (包含线圈发热)

1 Appearance and dimensions (mm)
外形尺寸

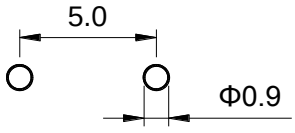


2 Marking
印字标识

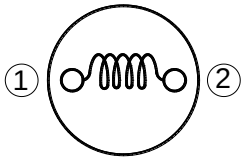


※ Marking is available if needed.
如果需要，产品可印字。

3 Reference hole pattern (mm)
参考焊孔尺寸



4 Schematic
原理图



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5 Electrical characteristics
电气特性

Part No. 型 号	Inductance (μH) 电感值 ※1	D.C.R. (mΩ) 直流电阻		Saturation current (A) 饱和电流 ※2	Temperature rise current (A) 温升电流 ※3
	±20%	Typical	Max	Typical	Typical
PRD1010-100M	10.0	16.1	19.3	3.60	2.70
PRD1010-120M	12.0	16.8	20.2	3.20	2.50
PRD1010-150M	15.0	25.0	30.0	3.00	2.40
PRD1010-180M	18.0	27.3	32.8	2.60	2.20
PRD1010-220M	22.0	29.4	35.3	2.30	1.90
PRD1010-270M	27.0	31.5	37.8	1.80	1.50
PRD1010-330M	33.0	55.0	66.0	1.75	1.40
PRD1010-390M	39.0	66.0	79.2	1.70	1.35
PRD1010-470M	47.0	70.0	84.0	1.60	1.30
PRD1010-560M	56.0	77.0	92.4	1.40	1.10
PRD1010-680M	68.0	105	126	1.30	1.00
PRD1010-820M	82.0	112	134	1.20	0.90
PRD1010-101M	100	133	160	1.00	0.80
PRD1010-121M	120	147	176	0.95	0.70
PRD1010-151M	150	161	193	0.90	0.65
PRD1010-181M	180	182	218	0.80	0.50
PRD1010-221M	220	270	324	0.70	0.45
PRD1010-271M	270	350	420	0.65	0.40
PRD1010-331M	330	389	467	0.60	0.38
PRD1010-391M	390	483	580	0.55	0.35
PRD1010-471M	470	686	823	0.50	0.30
PRD1010-561M	560	770	924	0.45	0.25
PRD1010-681M	680	840	1,000	0.40	0.20
PRD1010-821M	820	910	1,090	0.35	0.18
PRD1010-102M	1,000	1,050	1,260	0.30	0.15

■ All data is tested based on 25℃ ambient temperature.
所有数据基于环境温度 25℃条件下测试。

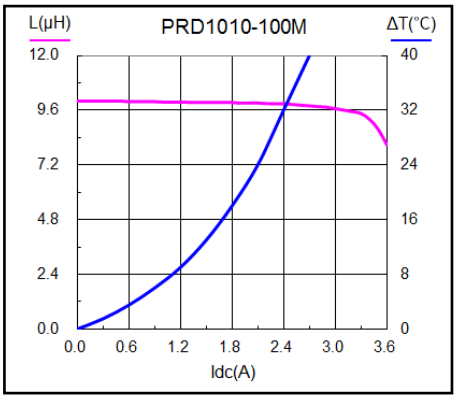
※1 Inductance measure condition at 100kHz, 0.1V.
电感测试条件为 100kHz，0.1V。

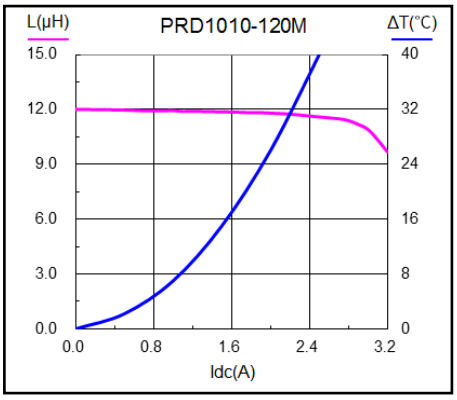
※2 Saturation current：the actual value of DC current when the inductance decrease 20% of its initial value.
饱和电流：电感值下降其初始值的 20%时所加载的实际直流电流值。

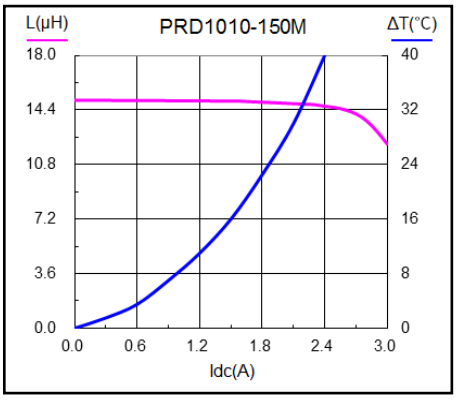
※3 Temperature rise current：the actual value of DC current when the temperature rise is ΔT40℃(Ta=25℃).
温升电流：使产品温度上升到 ΔT40℃时所加载的实际直流电流值(Ta=25℃)。

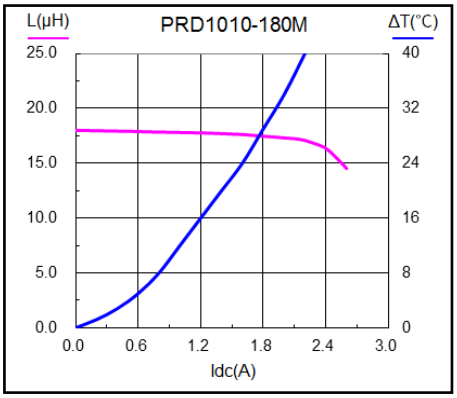
※ Special remind：Circuit design, component placement, PWB size and thickness, cooling system and etc. all will affect the product temperature. Please verify the product temperature in the final application.
特别提醒：线路设计，组件布局，印刷线路板(PWB)尺寸及厚度，散热系统等均会影响产品温度。
请务必在最终应用时，验证产品发热状况。

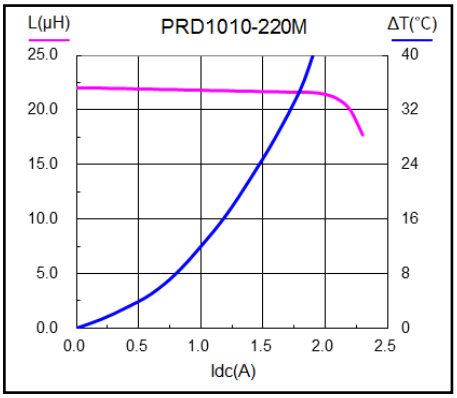
6 Saturation current VS temperature rise current curve
饱和电流 VS 温升电流曲线

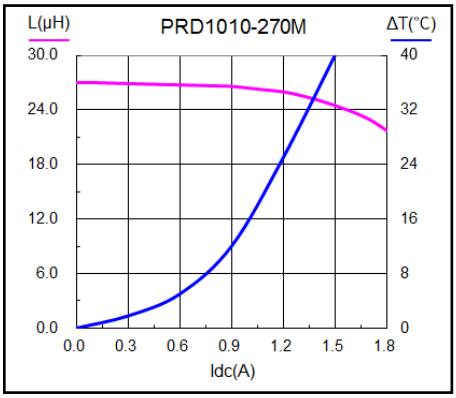


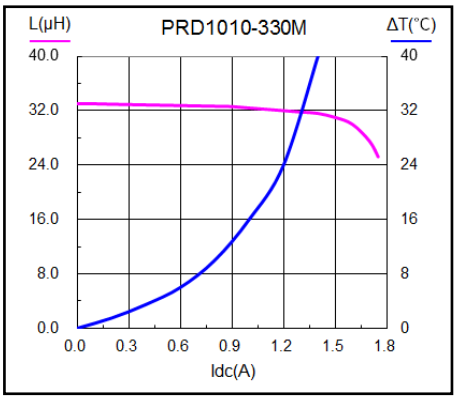


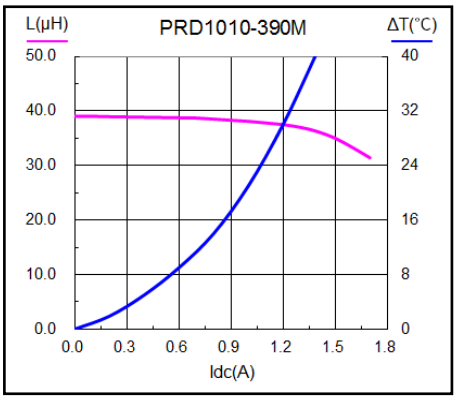


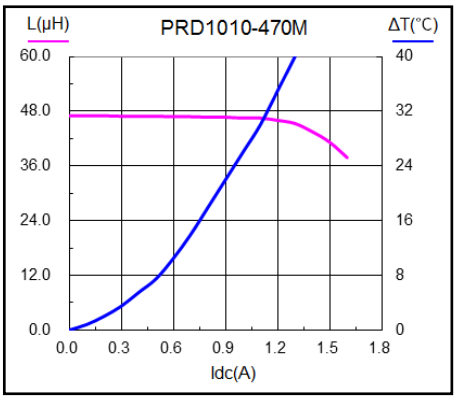


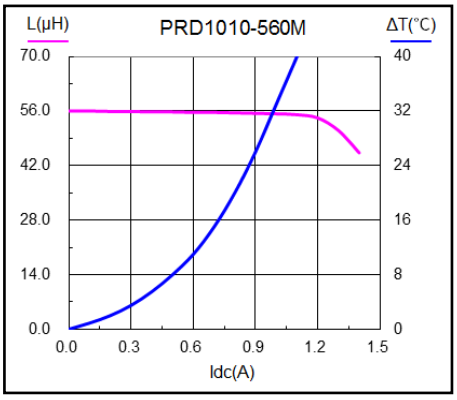


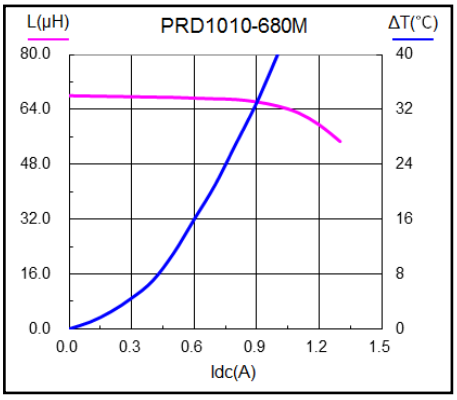


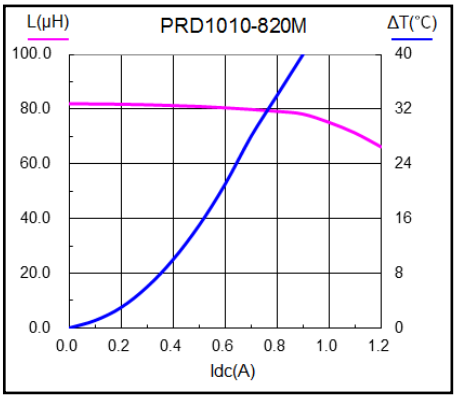


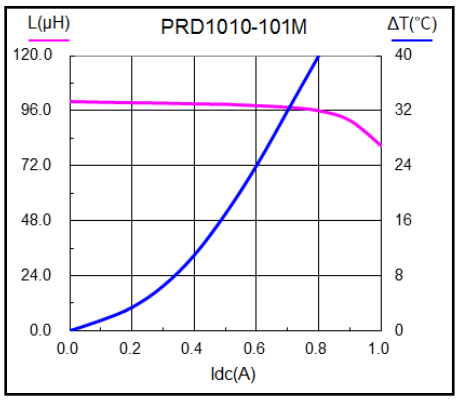


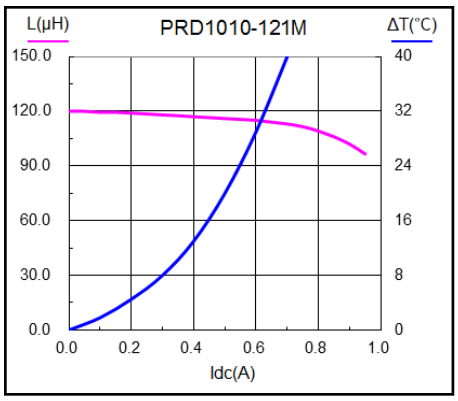


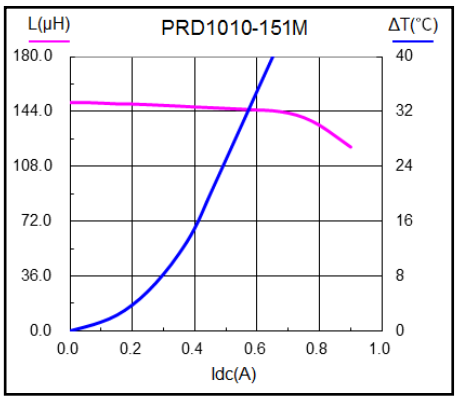


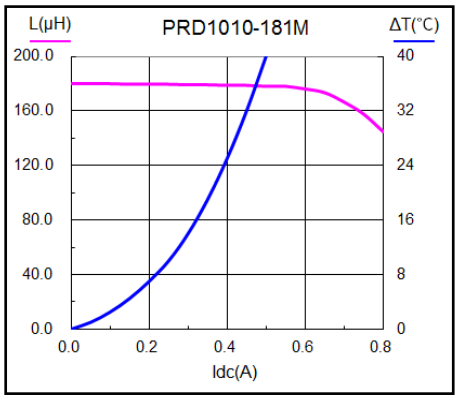


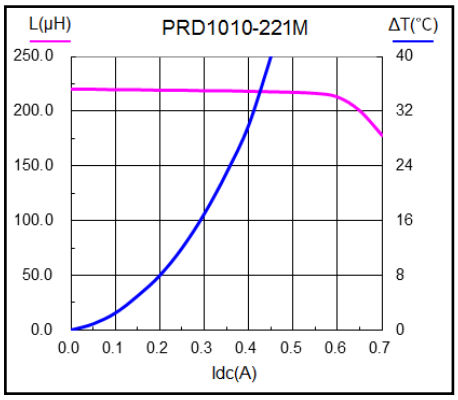


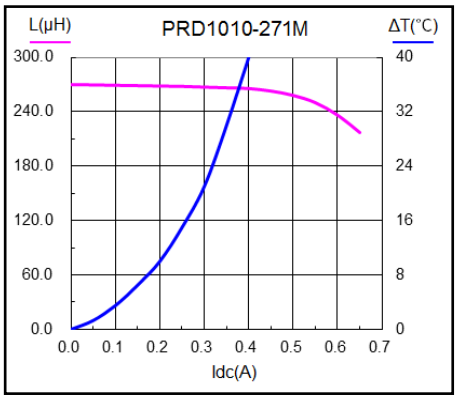


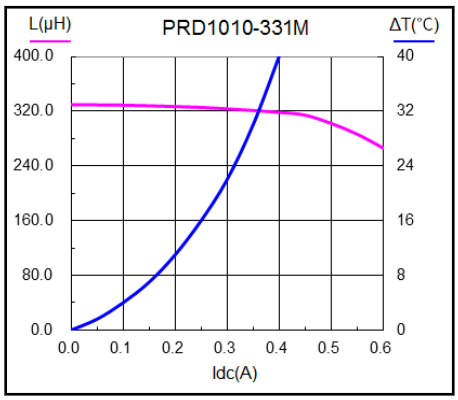


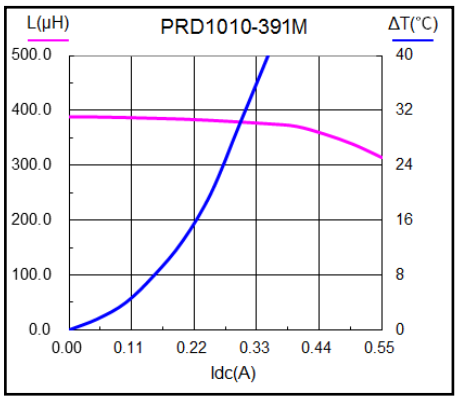


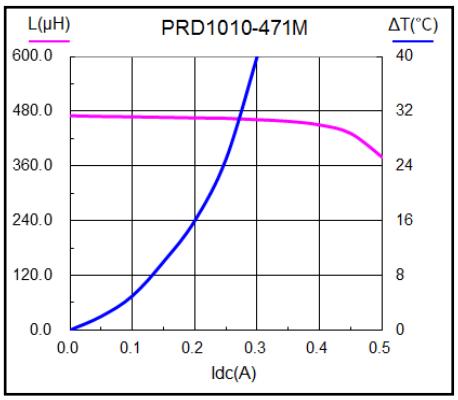


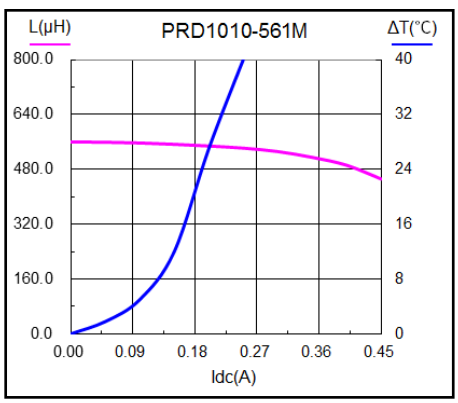


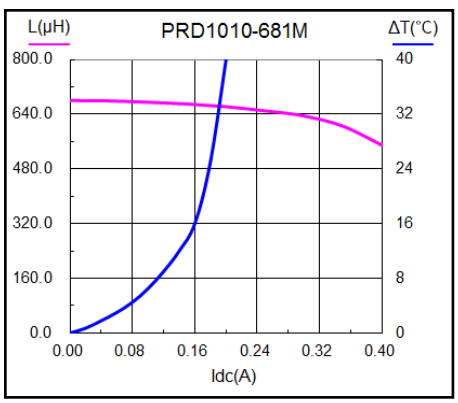


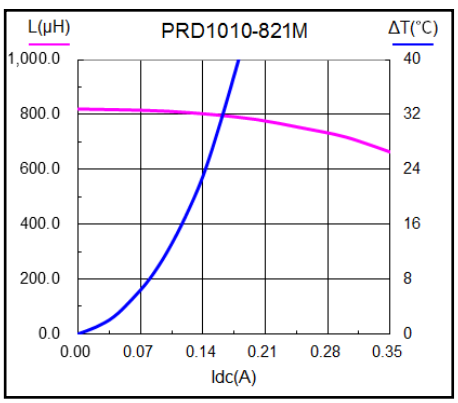












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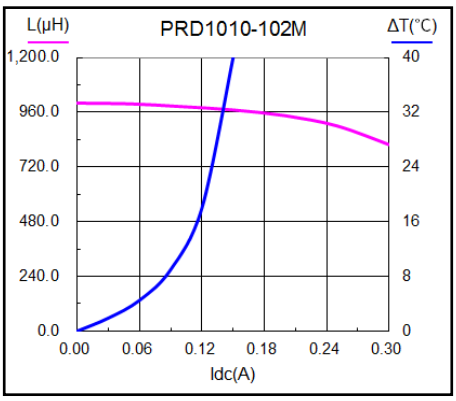
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PRD1010-102M
ΔT(°C)
1,200.0
960.0
720.0
480.0
240.0
0.0
40
32
24
16
8
0
0.00
0.06
0.12
0.18
0.24
0.30
Idc(A)