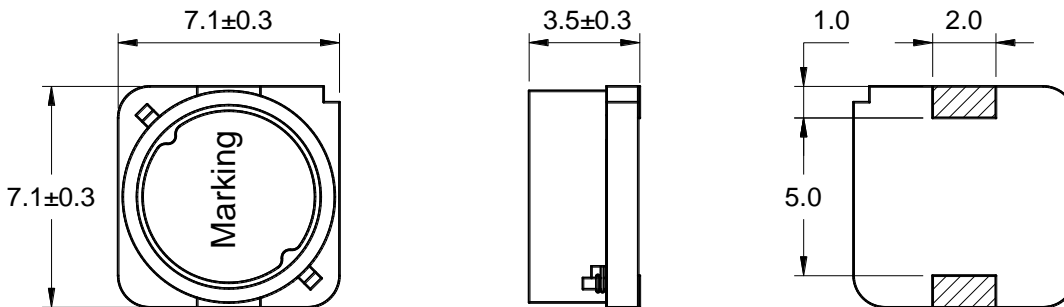




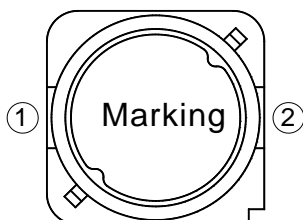
Outline: 产品概要

- Low DCR, high rated current.
低直流电阻, 耐大电流。
- Magnetic shielded structure
磁性屏蔽结构
- Lead free product, RoHS compliant.
无铅产品, 符合 RoHS 指令。
- Carrier tape packing, suitable for SMT process.
载带包装, 适用于回流焊 SMT 工艺。
- Widely used in buck converter, displayer, automotive electronics, household appliance, and etc.
广泛应用于升降压转换器, 显示器, 汽车电子, 家用电器等。
- Operating temperature : $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$
(Including coil's temperature rise)
工作温度: $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$ (包含线圈发热)

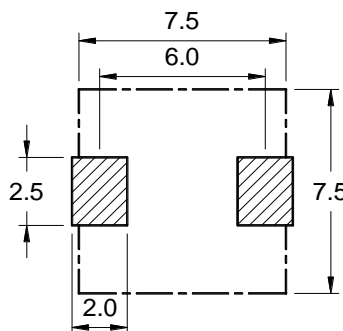
1 Appearance and dimensions (mm) 外形尺寸



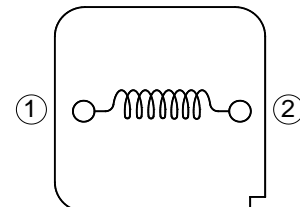
2 Marking 印字标识



3 Reference land pattern (mm) 参考基板尺寸



4 Schematic 原理图



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
		Typical	Max	Typical	Max	Typical
SPBL0703-1R0N	1.00 ±30%	13.5	16.2	5.50	4.40	4.88
SPBL0703-1R5N	1.50 ±30%	16.5	19.8	4.70	3.76	4.41
SPBL0703-2R2N	2.20 ±30%	18.5	22.2	4.00	3.20	4.17
SPBL0703-3R3N	3.30 ±30%	24.4	29.3	3.10	2.48	3.63
SPBL0703-4R7N	4.70 ±30%	31.0	37.2	2.50	2.00	3.22
SPBL0703-6R8N	6.80 ±30%	41.0	49.2	2.10	1.68	2.80
SPBL0703-8R2N	8.20 ±30%	46.0	55.2	1.95	1.56	2.64
SPBL0703-100M	10.0 ±20%	52.0	62.4	1.70	1.36	2.49
SPBL0703-150M	15.0 ±20%	76.0	91.2	1.40	1.12	2.06
SPBL0703-220M	22.0 ±20%	115	138	1.15	0.92	1.67
SPBL0703-330M	33.0 ±20%	168	202	0.95	0.76	1.38
SPBL0703-470M	47.0 ±20%	244	293	0.78	0.62	1.15
SPBL0703-680M	68.0 ±20%	312	374	0.65	0.52	1.01
SPBL0703-820M	82.0 ±20%	402	482	0.60	0.48	0.89
SPBL0703-101M	100 ±20%	470	564	0.53	0.42	0.83
SPBL0703-151M	150 ±20%	700	840	0.45	0.36	0.68
SPBL0703-221M	220 ±20%	923	1,108	0.36	0.29	0.59
SPBL0703-331M	330 ±20%	1,450	1,740	0.30	0.24	0.47
SPBL0703-471M	470 ±20%	2,070	2,484	0.25	0.20	0.39
SPBL0703-681M	680 ±20%	3,030	3,636	0.21	0.17	0.33
SPBL0703-821M	820 ±20%	3,500	4,200	0.19	0.15	0.30
SPBL0703-102M	1,000 ±20%	4,600	5,520	0.17	0.14	0.26

■ All data is tested based on 25°C ambient temperature.

所有数据基于环境温度 25°C 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°C (Ta=25°C).

温升电流: 使产品温度上升到 ΔT40°C 时所加载的实际直流电流值 (Ta=25°C)。

※ 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。

深圳市科达嘉电子有限公司

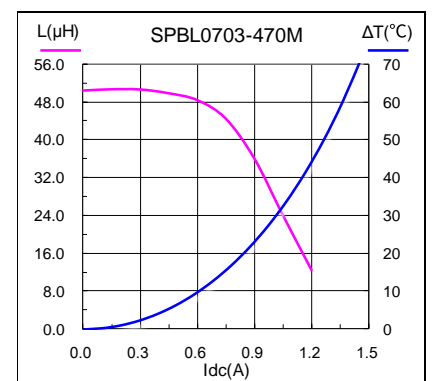
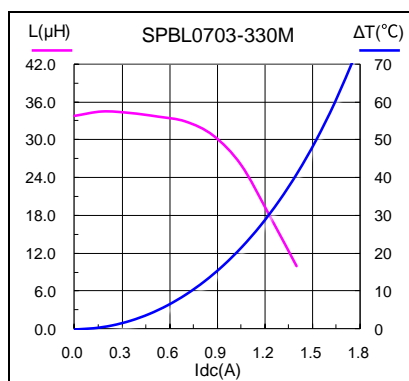
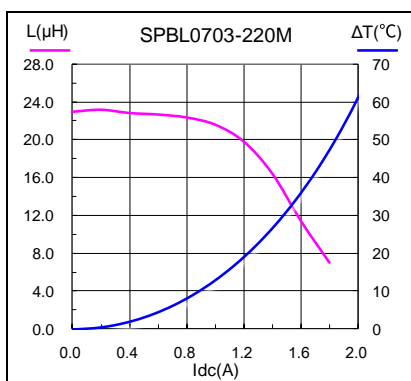
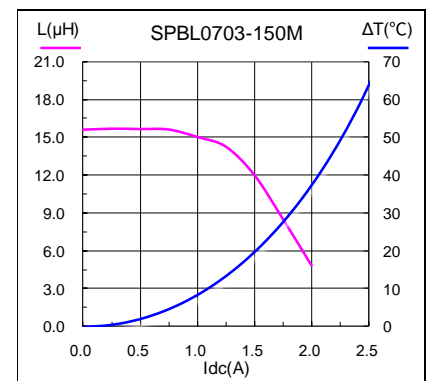
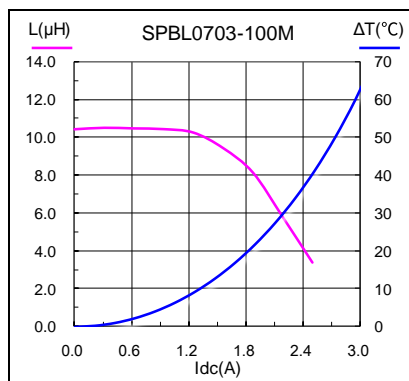
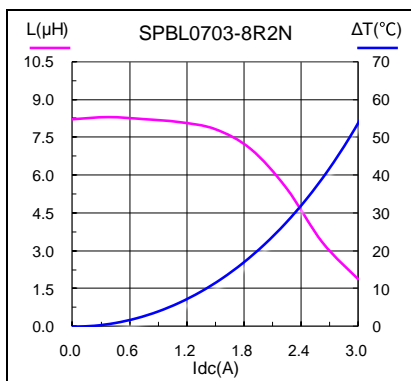
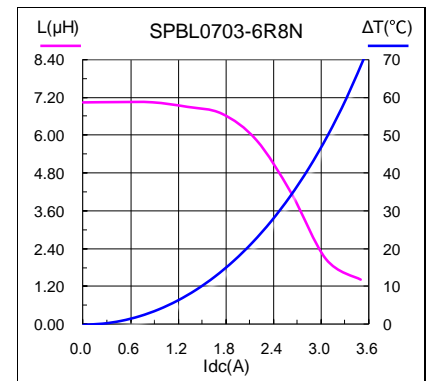
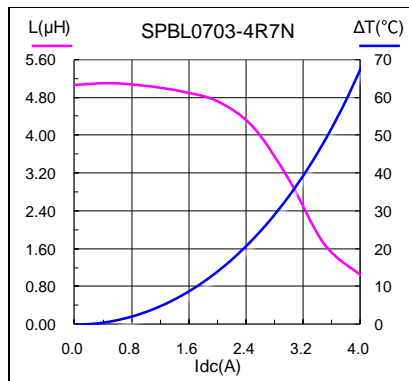
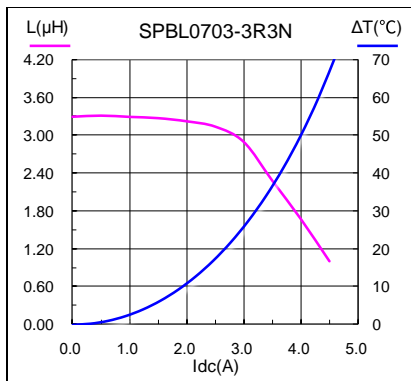
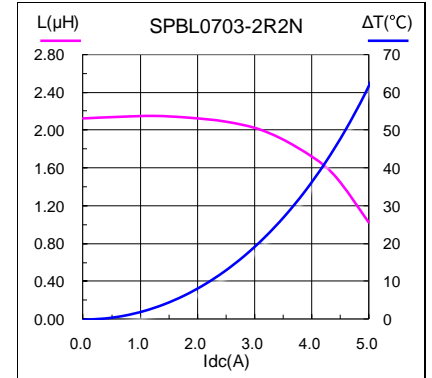
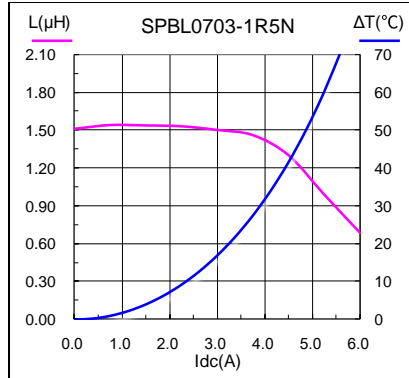
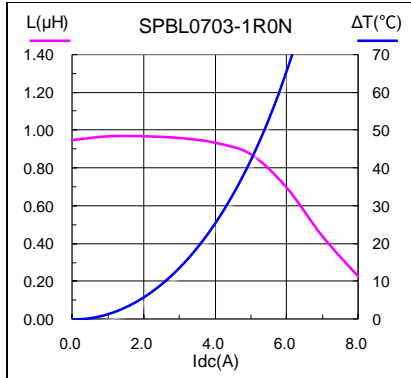
SHENZHEN CODACA ELECTRONIC CO., LTD

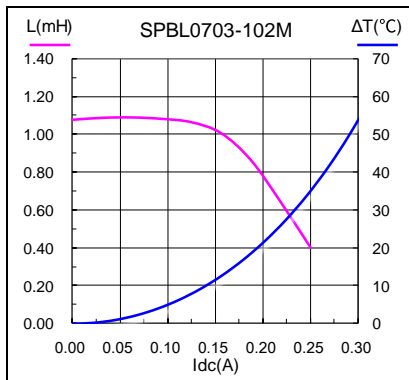
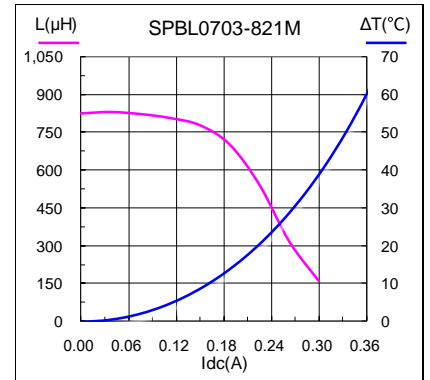
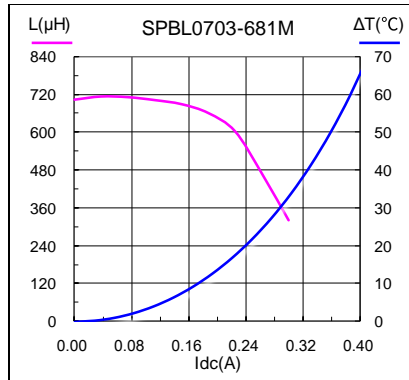
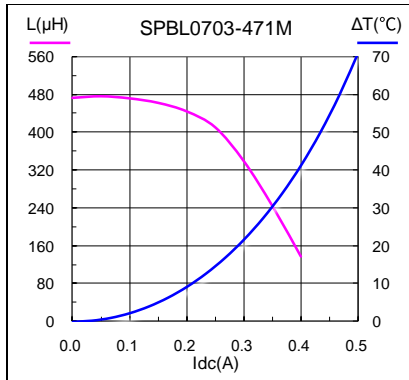
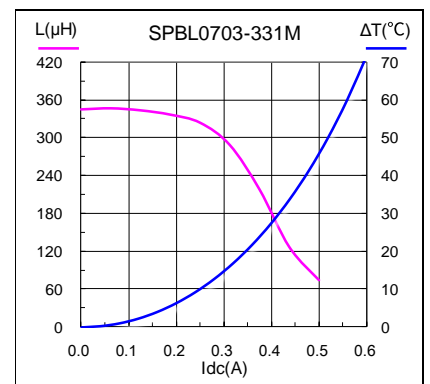
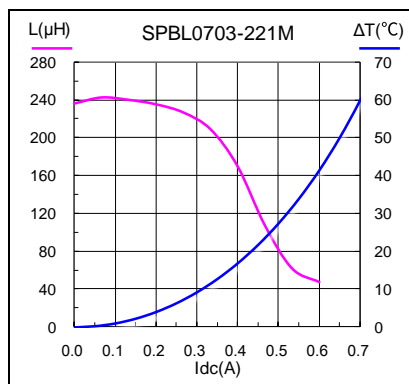
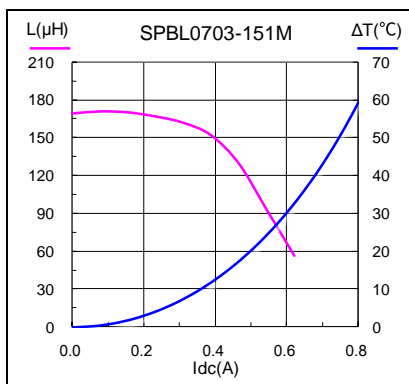
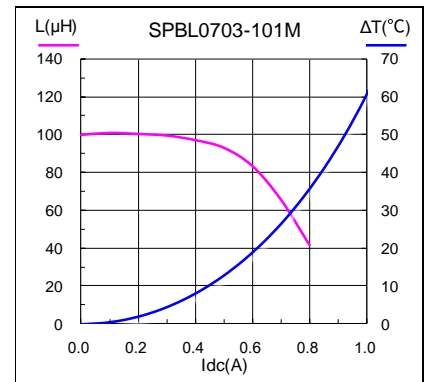
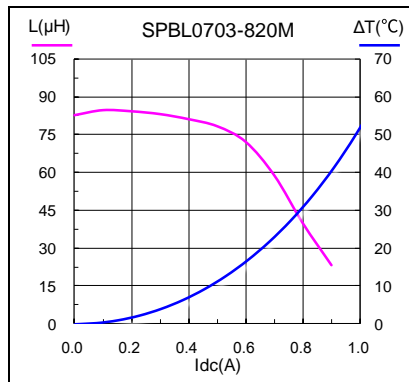
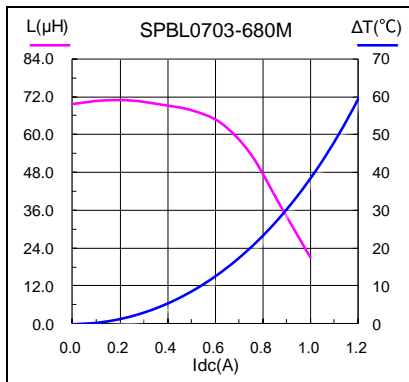
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http://www.codaca.com http://www.codaca.com.cn

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



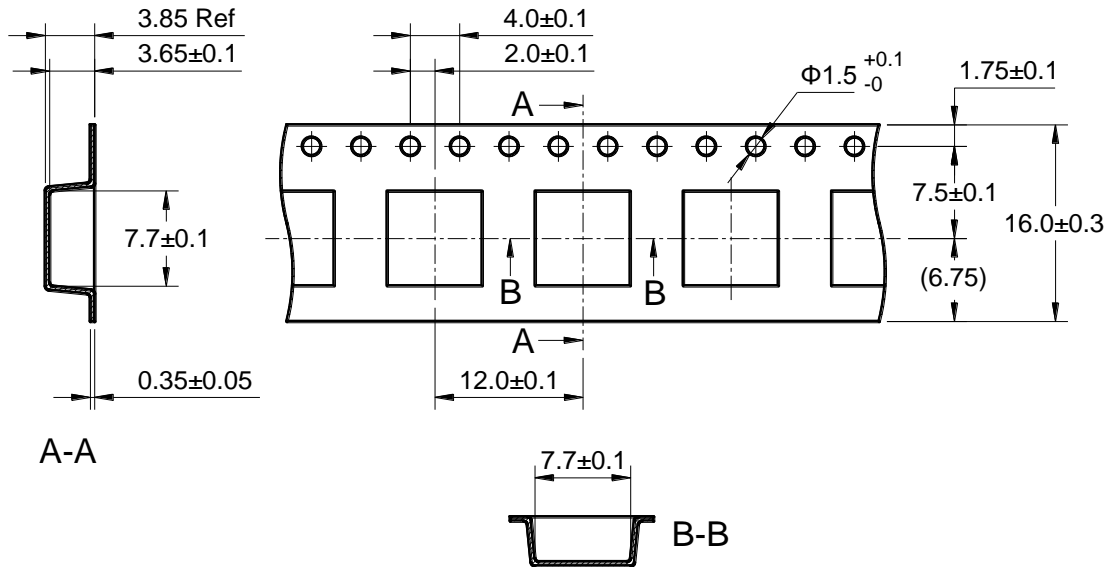


7 Packing specification

包装规格

7.1 Carrier tape dimensions (mm)

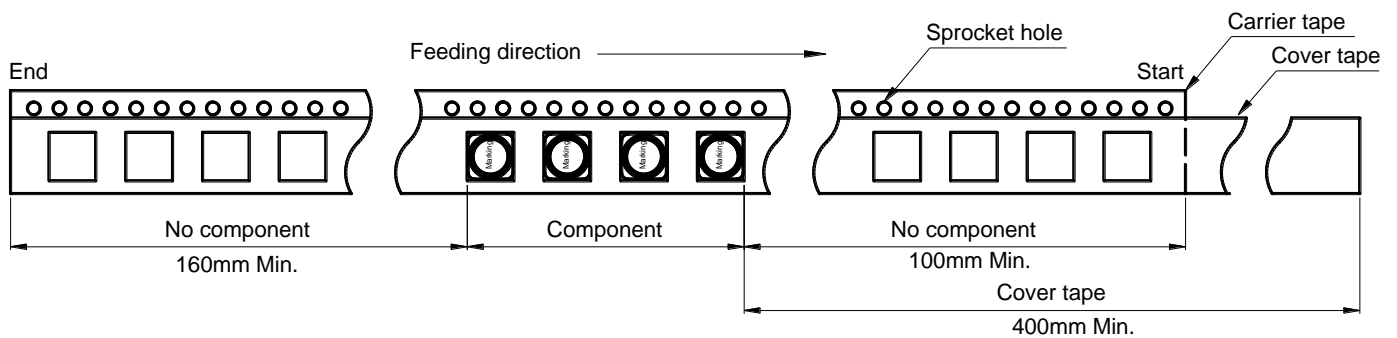
载带尺寸



※ Packing is referred to the international standard IEC 60286-3.
包装参照国际标准 IEC 60286-3。

7.2 Tape direction

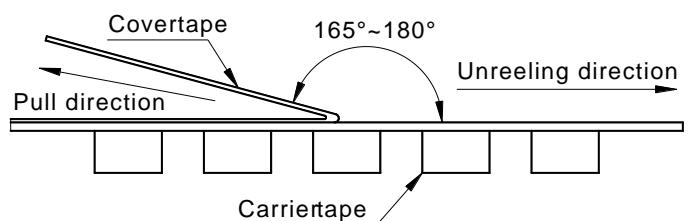
捆包方向



7.3 Cover tape peel off condition

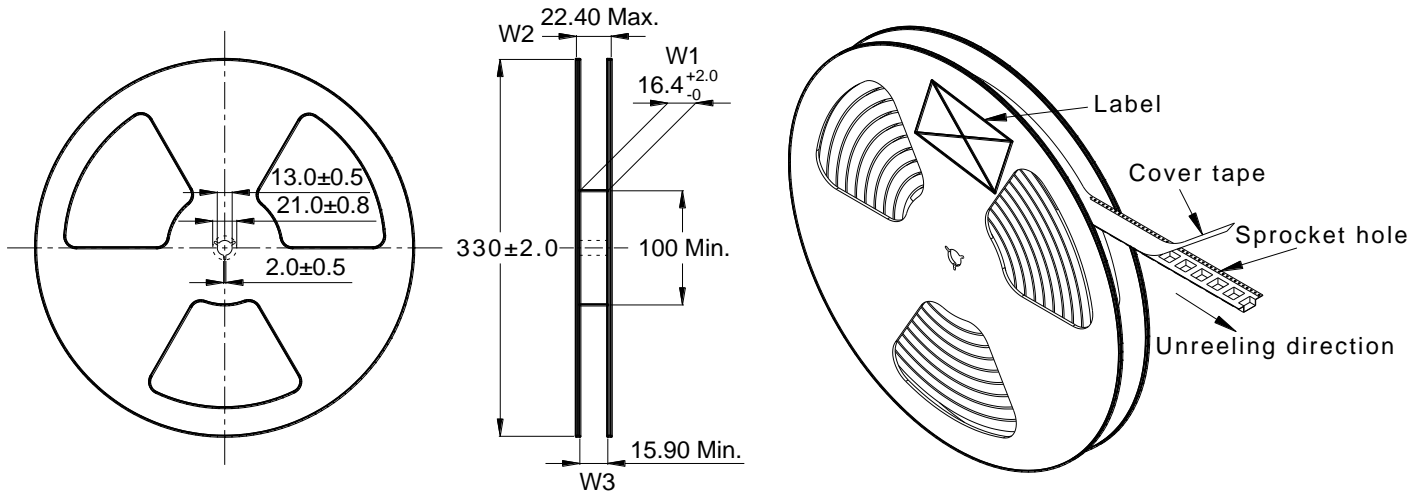
盖带剥离条件

- Cover tape peel force shall be 0.1 to 1.3N.
盖带剥离力度为 0.1~1.3N。
- Reference peel speed 300±10mm/min.
参考剥离速度 300±10mm/分钟。



7.4 Reel dimensions (mm)

卷盘尺寸



7.5 Carton dimensions and packing quantity

包装箱尺寸和包装数量

■ Inner Carton: 365×345×105mm
内包装盒

■ Out Carton : 385×365×245mm
外包装箱

Product Series 产品系列	Quantity / Reel 数量 / 卷	Inner Carton Quantity 内盒 包装数量	Out Carton Quantity 外箱 包装总数量
SPBL0703	1000pcs	(1000×4) = 4000pcs	(4000×2) = 8000pcs

7.6 Label making

标签标识

The following items will be marked on the reel of product label and shipping label.
以下项目将明确标识于产品卷盘标签以及运输标签上。

Production Label 产品标签
■ Part No. 产品型号
■ Electrical Information 产品电性信息
■ Quantity 数量
■ Packing No. 包装流水号

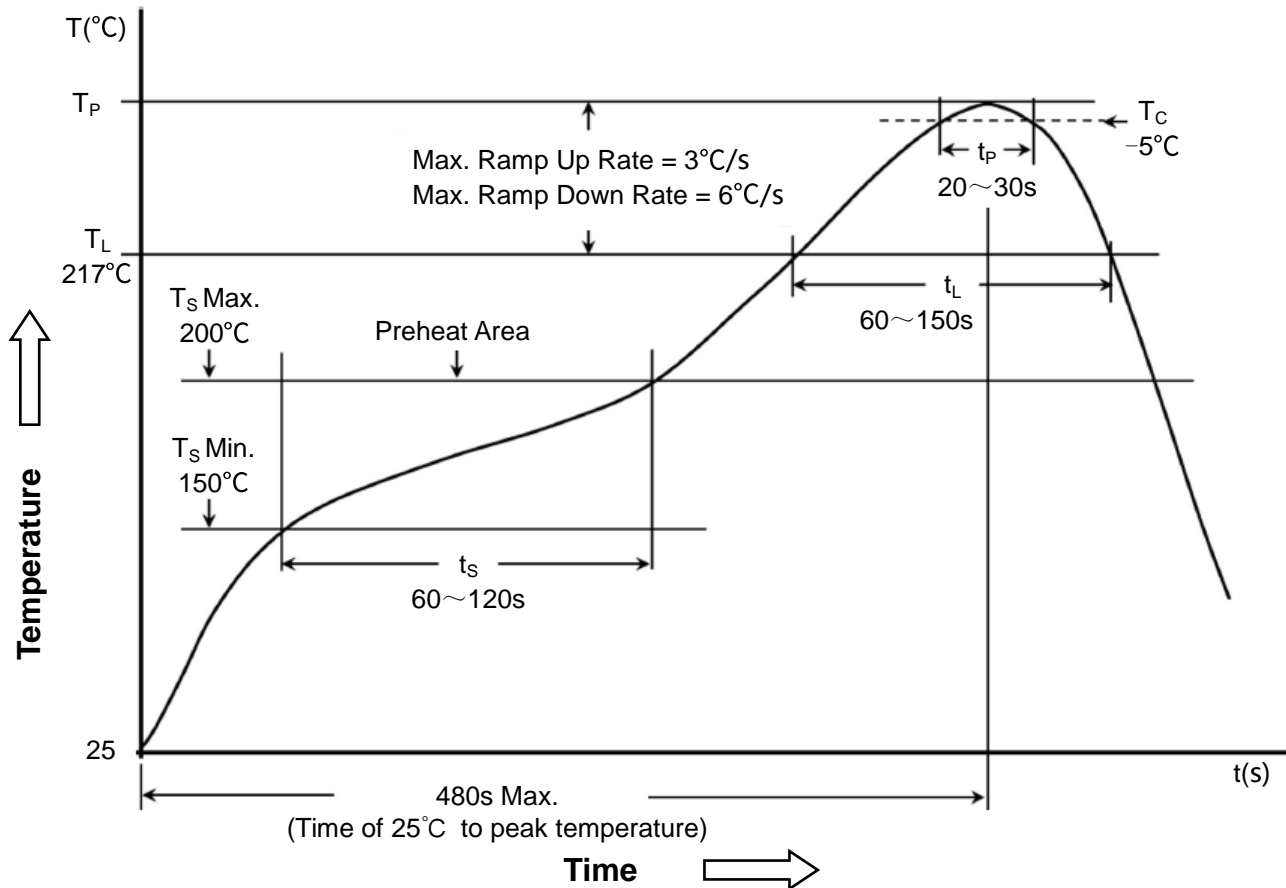
Shipping Label 运输标签
■ Customer Name 客户名称
■ Customer Part No. 客户型号
■ Supplier Part No. 供应商型号
■ Supplier Name 供应商名称
■ Country of origin 产品产地

8 Soldering specification

焊接规格

8.1 Reflow profile for SMT components

SMT 回流焊温度曲线



8.2 Classification of peak package body temperature (T_P)

封装体峰值温度(T_P)分类

	Package Thickness 封装厚度	Package Volume 封装体积		
		<350 mm ³	350~2000 mm ³	>2000 mm ³
PB-Free Assembly 无铅装配	<1.6mm	260°C	260°C	260°C
	1.6~2.5mm	260°C	250°C	245°C
	≥2.5mm	250°C	245°C	245°C

※ Reflow is referred to standard IPC/JEDEC J-STD-020D.
回流焊参照标准 IPC/JEDEC J-STD-020D.