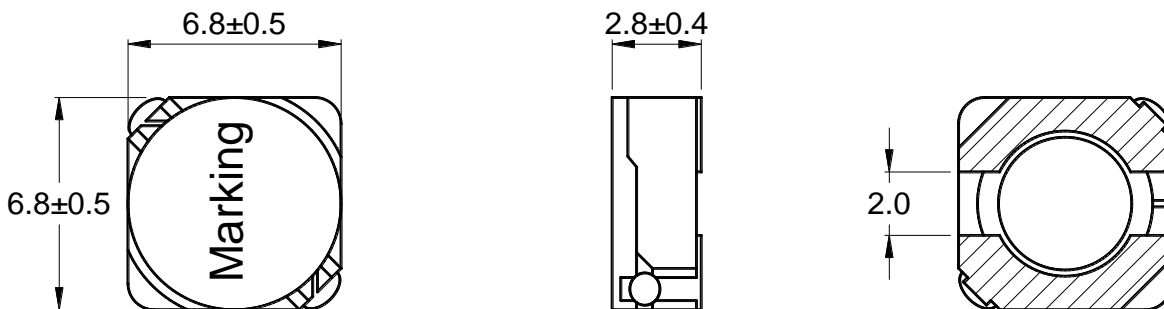




Outline: 产品概要

- Low profile, magnetic shielded structure.
超薄型，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, laptop, displayer, computer and peripherals, and etc.
广泛应用于升降压转换器，笔记本电脑，显示器，电脑及其外围设备等。
- 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)

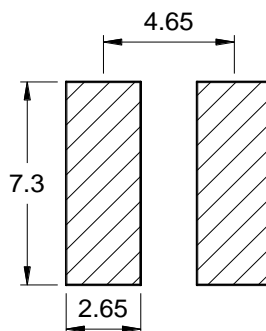
1 Appearance and dimensions (mm) 外形尺寸



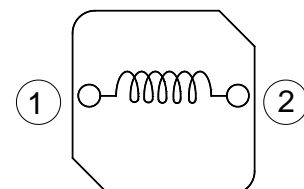
2 Marking 印字标识



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
SPD6D28-1R0N	1.00 ±30%	12.3	14.8	6.00	4.80	4.86
SPD6D28-2R2N	2.20 ±30%	16.8	20.2	3.80	3.04	4.16
SPD6D28-3R3N	3.30 ±30%	21.6	25.9	3.10	2.48	3.67
SPD6D28-4R7N	4.70 ±30%	28.7	34.4	2.60	2.08	3.18
SPD6D28-6R8N	6.80 ±30%	40.0	48.0	2.15	1.72	2.70
SPD6D28-8R2N	8.20 ±30%	45.0	54.0	2.00	1.60	2.54
SPD6D28-100M	10.0 ±20%	56.0	67.2	1.85	1.48	2.28
SPD6D28-120M	12.0 ±20%	67.5	81.0	1.65	1.32	2.08
SPD6D28-150M	15.0 ±20%	76.0	91.2	1.40	1.12	1.96
SPD6D28-220M	22.0 ±20%	116	139	1.20	0.96	1.58
SPD6D28-270M	27.0 ±20%	145	174	1.10	0.88	1.42
SPD6D28-330M	33.0 ±20%	167	200	1.00	0.80	1.32
SPD6D28-470M	47.0 ±20%	240	288	0.80	0.64	1.10
SPD6D28-560M	56.0 ±20%	260	312	0.75	0.60	1.06
SPD6D28-680M	68.0 ±20%	300	360	0.70	0.56	0.98
SPD6D28-820M	82.0 ±20%	374	449	0.63	0.50	0.88
SPD6D28-101M	100 ±20%	505	606	0.57	0.46	0.76
SPD6D28-151M	150 ±20%	650	780	0.46	0.37	0.67
SPD6D28-221M	220 ±20%	905	1,086	0.38	0.30	0.57
SPD6D28-271M	270 ±20%	1,250	1,500	0.35	0.28	0.48
SPD6D28-331M	330 ±20%	1,600	1,920	0.32	0.26	0.43
SPD6D28-471M	470 ±20%	2,335	2,802	0.26	0.21	0.35

■ 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)。

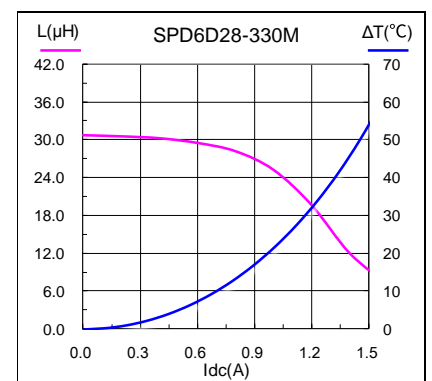
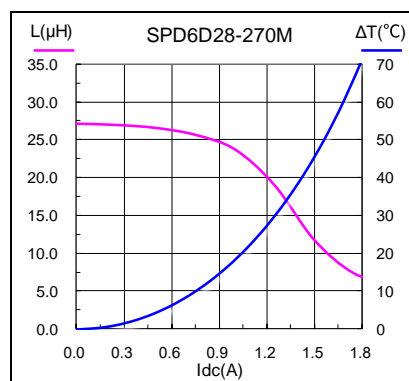
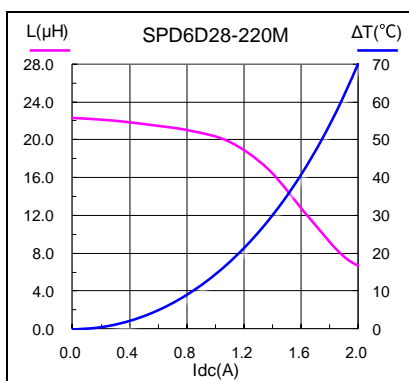
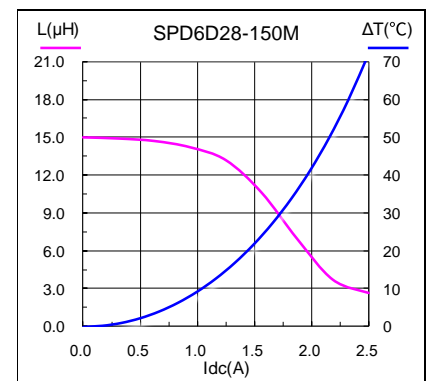
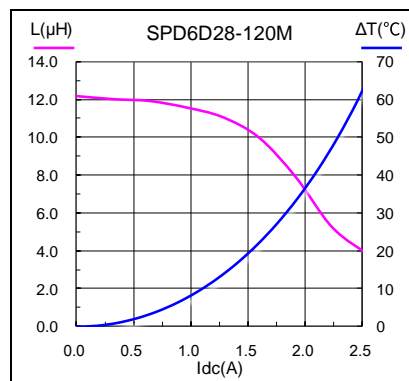
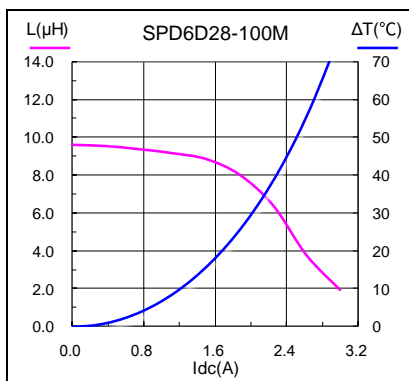
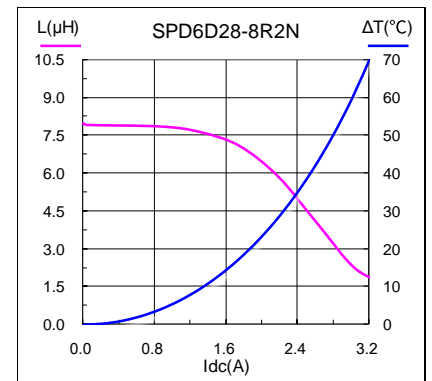
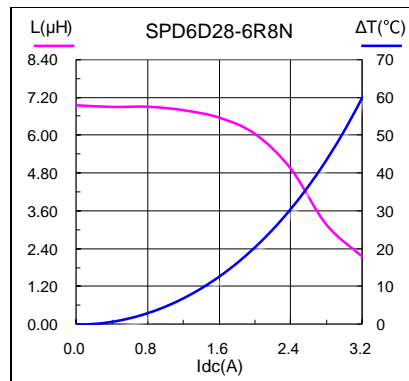
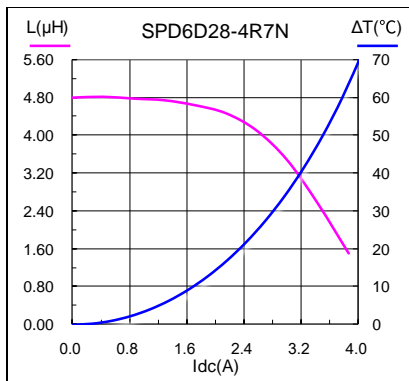
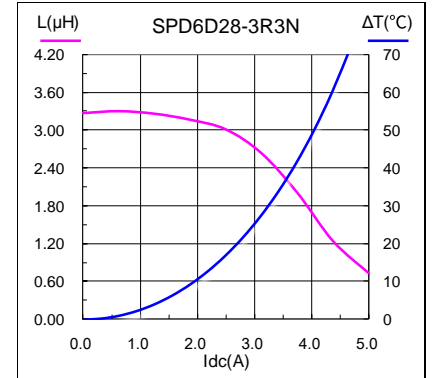
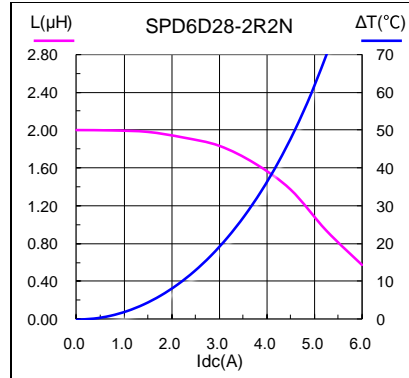
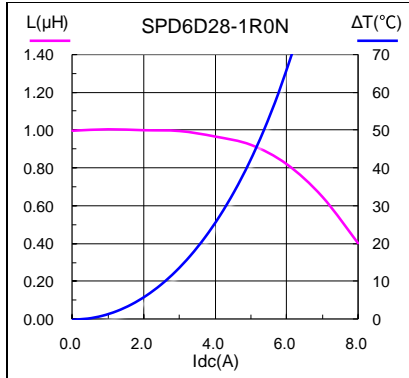
※ Special remind: Circuit design, component placement, PWB size and thickness, cooling system and etc.

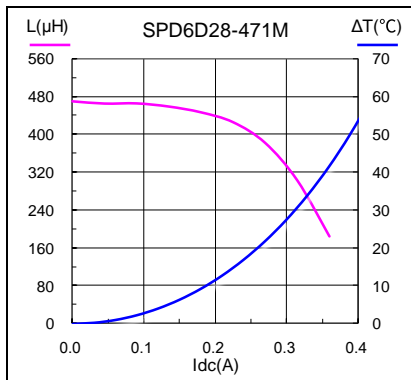
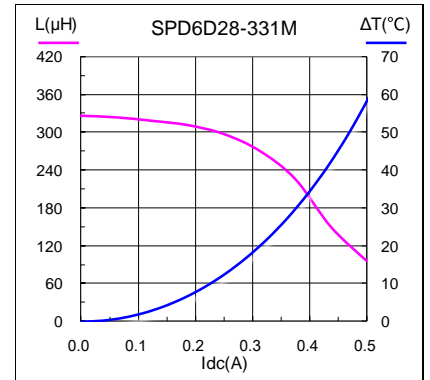
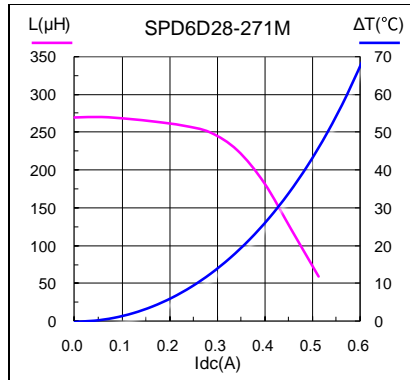
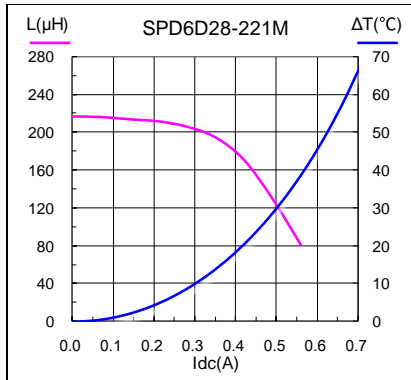
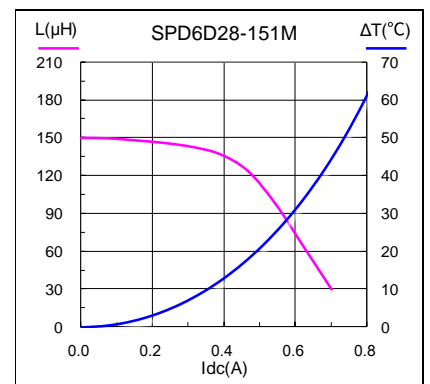
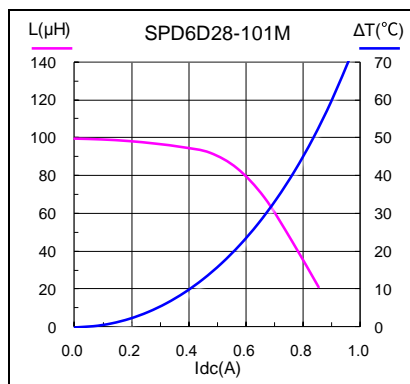
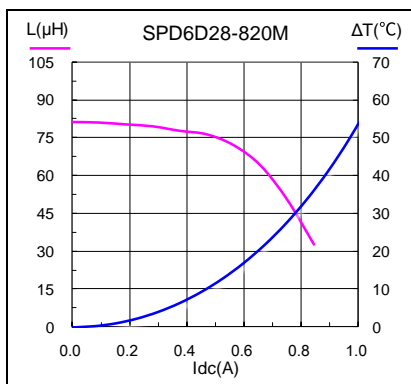
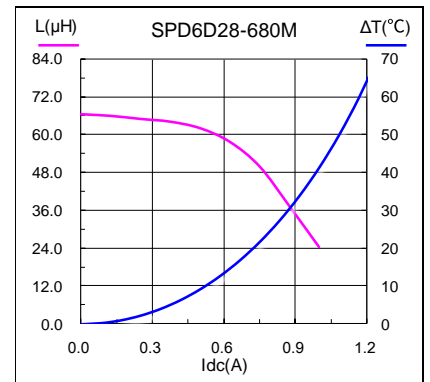
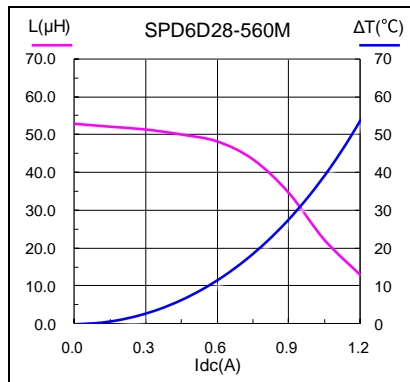
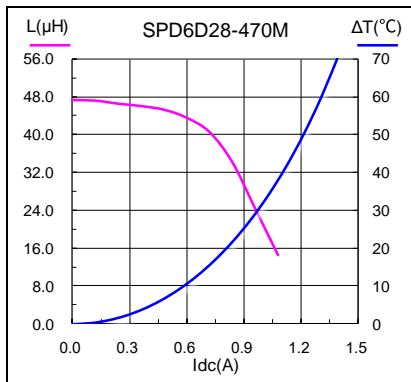
all will affect the product temperature. Please verify the product temperature in the final application.

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。

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



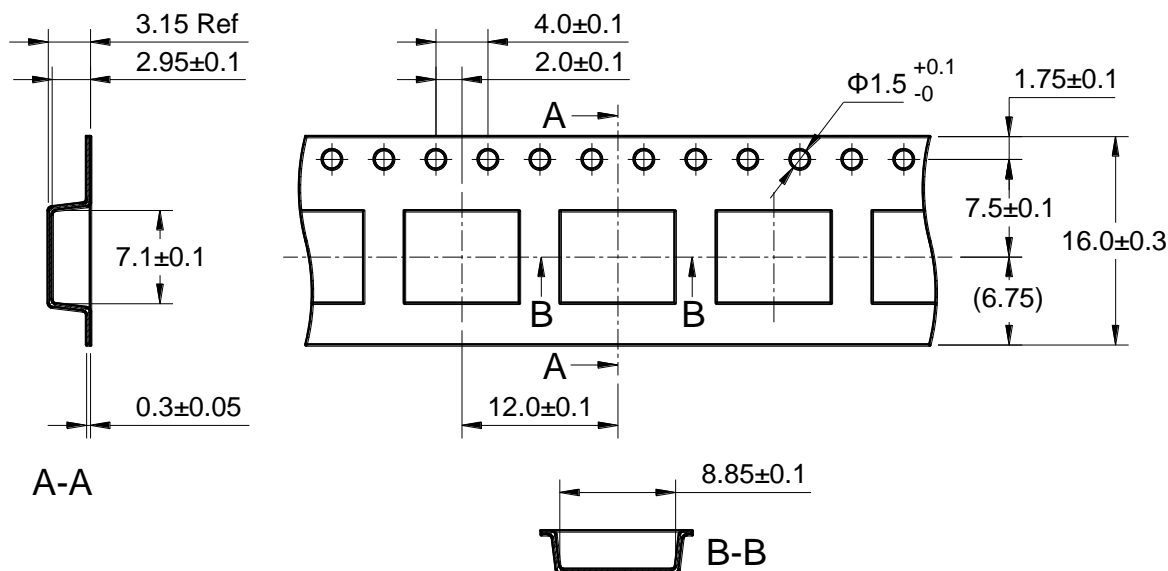


7 Packing specification

包装规格

7.1 Carrier tape dimensions (mm)

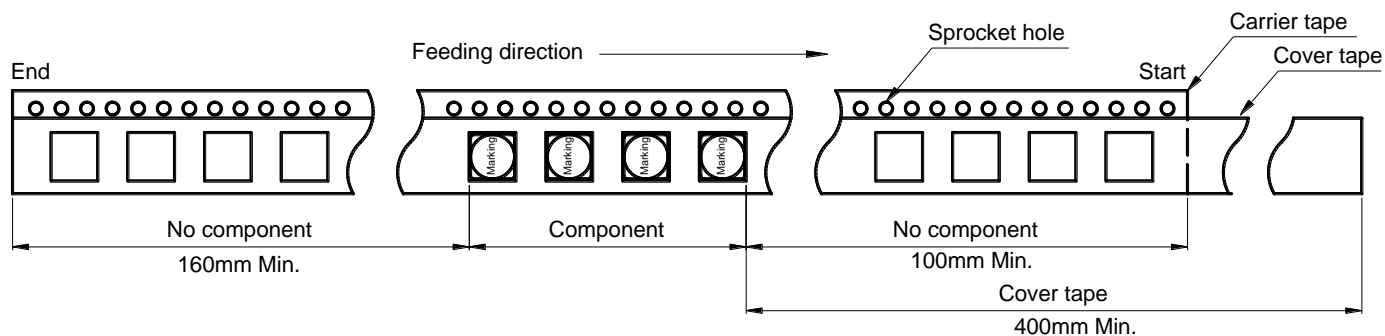
载带尺寸



※ 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

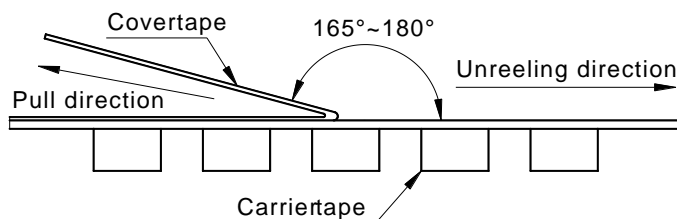
捆包方向



7.3 Cover tape peel off condition

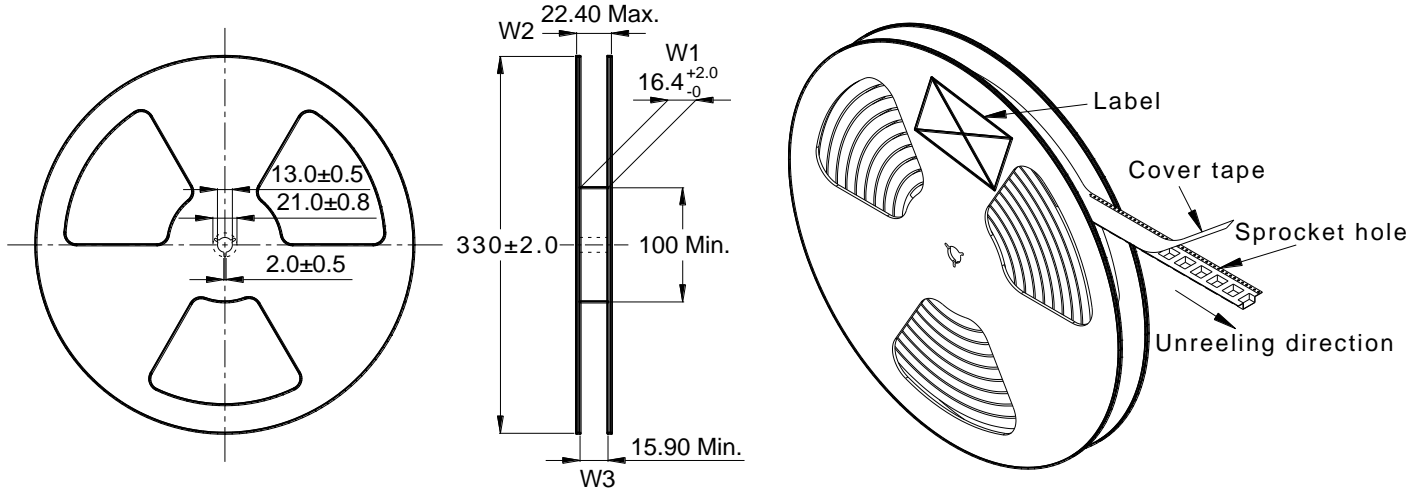
盖带剥离条件

- 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
SPD6D28	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

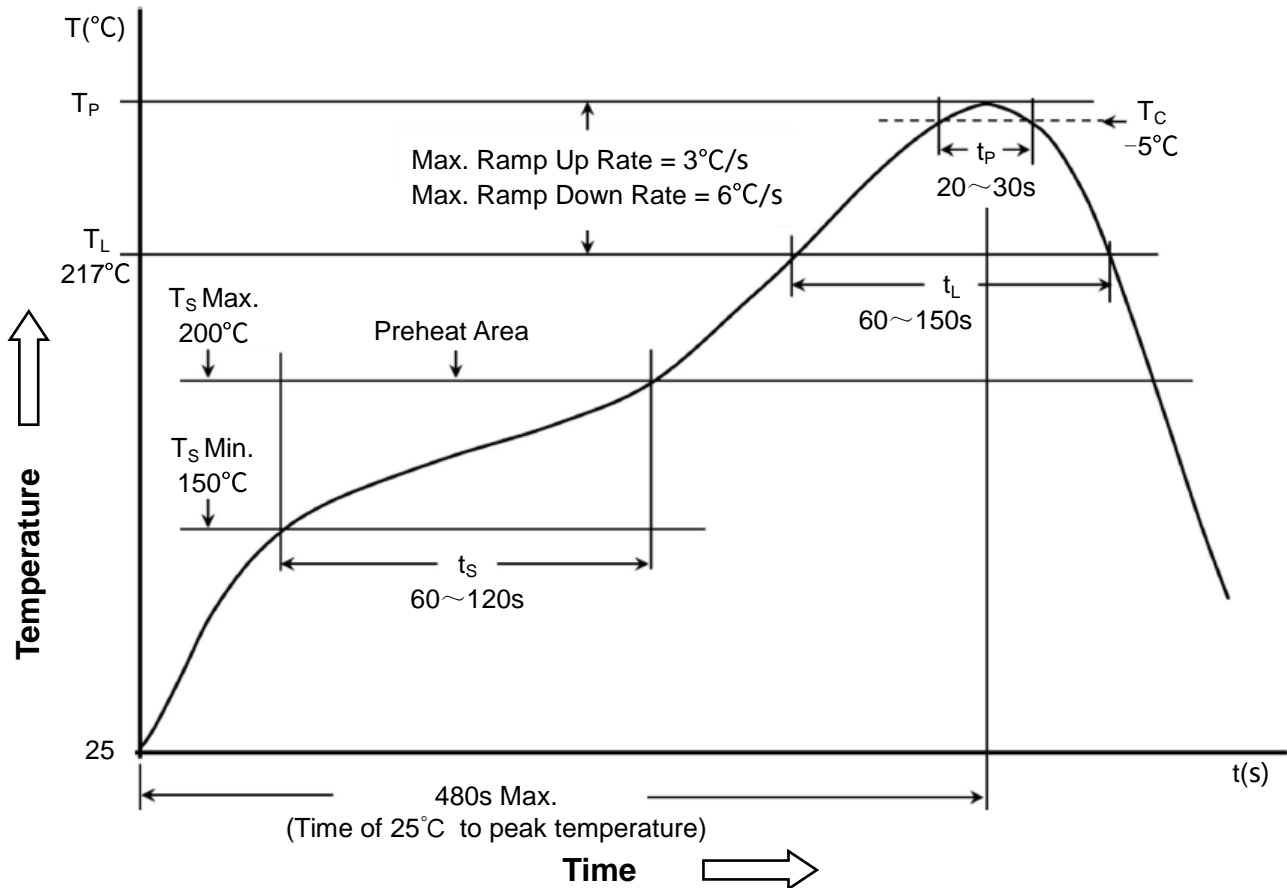
Shipping Label 运输标签
■ Customer Name 客户名称
■ Customer Part No. 客户型号
■ Supplier Part No. 供应商型号
■ Supplier Name 供应商名称
■ Country of origin 产品产地

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.