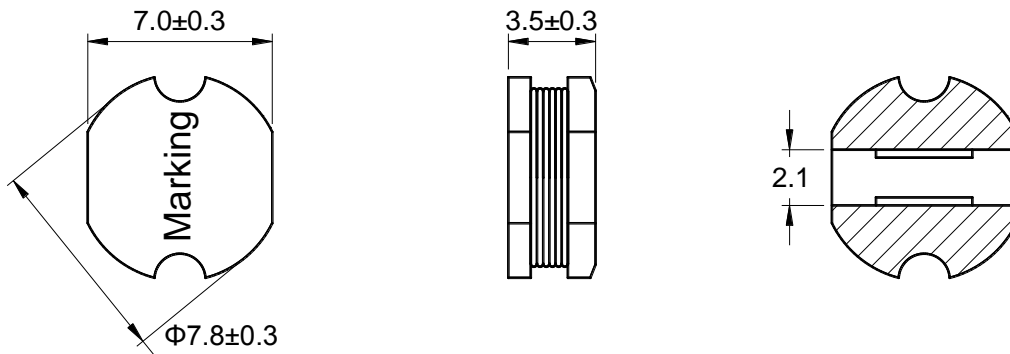


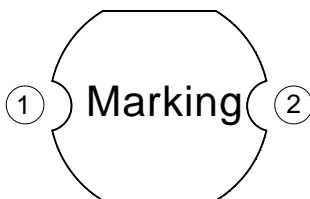
### Outline: 产品概要

- Small size, high rated current, low DCR.  
小尺寸，耐大电流，低直流电阻。
- 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, laptop, network communication equipment, and etc.  
广泛应用于升降压转换器，显示器，笔记本电脑，网络通信设备等。
- 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)

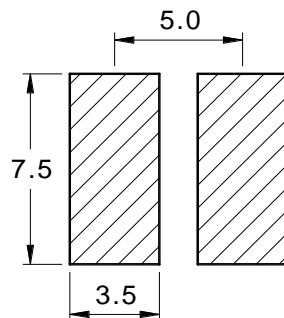
### 1 Appearance and dimensions (mm) 外形尺寸



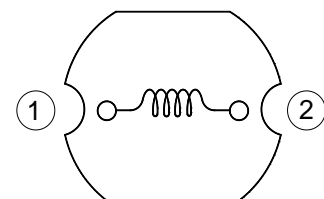
### 2 Marking 印字标识



### 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
SP73-1R0M	1.00 ± 20%	7.35	8.82	9.20	7.36	7.57
SP73-2R2M	2.20 ± 20%	11.1	13.3	6.70	5.36	6.16
SP73-3R3M	3.30 ± 20%	15.7	18.8	5.40	4.32	5.18
SP73-4R7M	4.70 ± 20%	20.3	24.4	4.55	3.64	4.56
SP73-6R8M	6.80 ± 20%	29.0	34.8	3.80	3.04	3.81
SP73-8R2M	8.20 ± 20%	34.5	41.4	3.35	2.68	3.49
SP73-100K	10.0 ± 10%	44.4	53.3	3.10	2.48	3.08
SP73-120K	12.0 ± 10%	54.0	64.8	2.79	2.23	2.79
SP73-150K	15.0 ± 10%	64.0	76.8	2.60	2.08	2.57
SP73-180K	18.0 ± 10%	72.4	86.9	2.35	1.88	2.41
SP73-220K	22.0 ± 10%	87.8	105	2.15	1.72	2.19
SP73-270K	27.0 ± 10%	105	126	2.00	1.60	2.00
SP73-330K	33.0 ± 10%	131	157	1.72	1.38	1.79
SP73-390K	39.0 ± 10%	156	187	1.65	1.32	1.64
SP73-470K	47.0 ± 10%	185	222	1.48	1.18	1.51
SP73-560K	56.0 ± 10%	224	269	1.32	1.06	1.37
SP73-680K	68.0 ± 10%	256	307	1.18	0.94	1.28
SP73-820K	82.0 ± 10%	303	364	1.11	0.89	1.18
SP73-101K	100 ± 10%	370	444	1.02	0.82	1.07
SP73-121K	120 ± 10%	444	533	0.91	0.73	0.97
SP73-151K	150 ± 10%	600	720	0.82	0.66	0.84
SP73-181K	180 ± 10%	669	803	0.75	0.60	0.79
SP73-221K	220 ± 10%	793	952	0.67	0.54	0.73
SP73-271K	270 ± 10%	940	1,128	0.62	0.50	0.67
SP73-331K	330 ± 10%	1,140	1,368	0.56	0.45	0.61
SP73-391K	390 ± 10%	1,380	1,656	0.50	0.40	0.55
SP73-471K	470 ± 10%	1,700	2,040	0.46	0.37	0.50
SP73-561K	560 ± 10%	2,000	2,400	0.42	0.34	0.46
SP73-681K	680 ± 10%	2,630	3,156	0.37	0.30	0.40
SP73-821K	820 ± 10%	3,080	3,696	0.35	0.28	0.37
SP73-102K	1,000 ± 10%	3,900	4,680	0.32	0.26	0.33

■ 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 1kHz, 0.25V.

电感测试条件为 1kHz, 0.25V。

※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)。

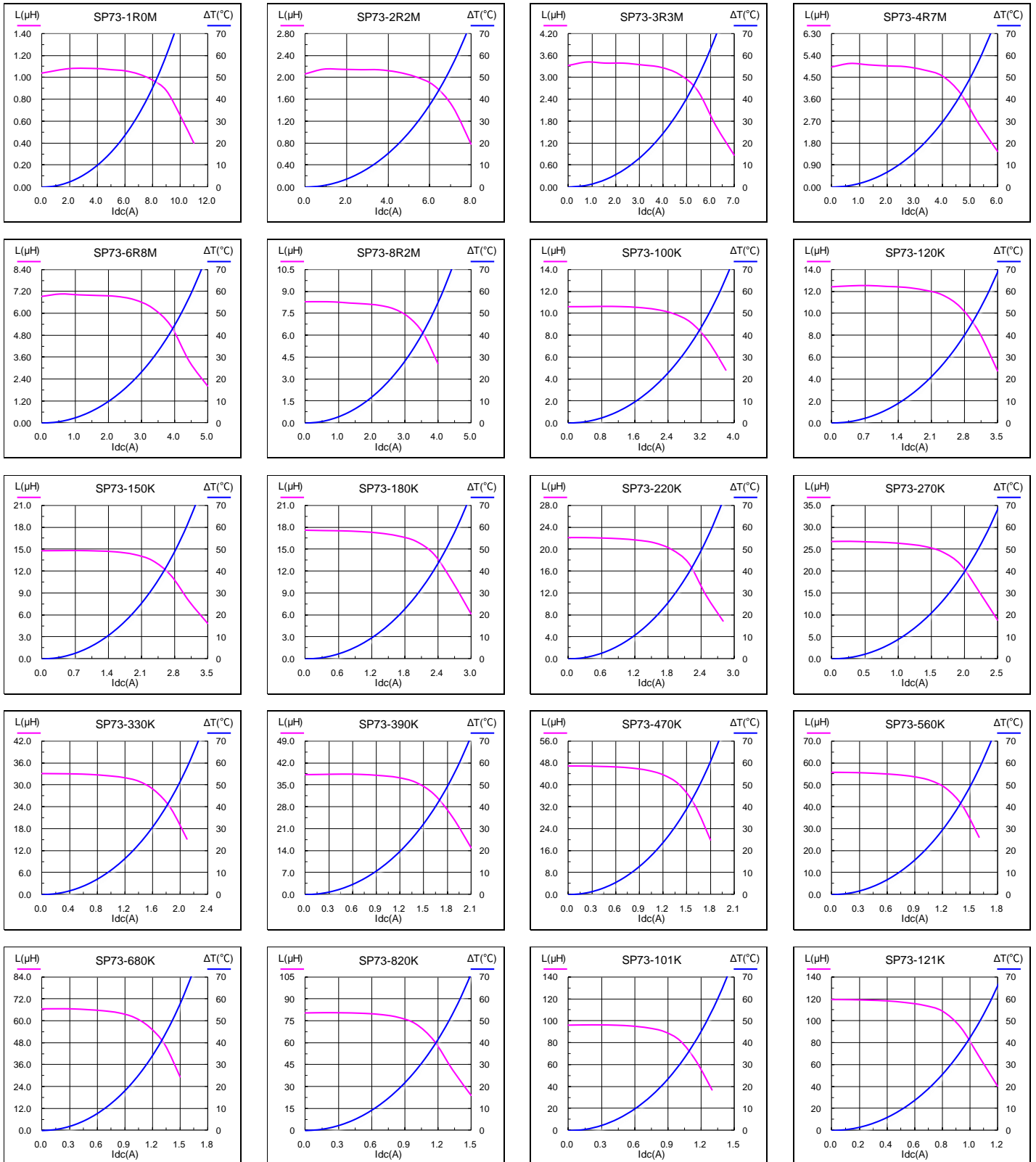
※ Special remind: Circuit design, component placement, PWB size and thickness, cooling system and etc.

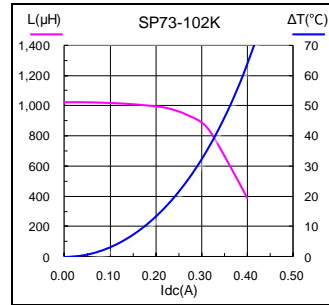
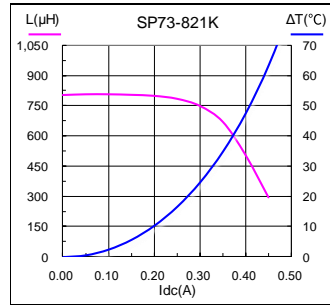
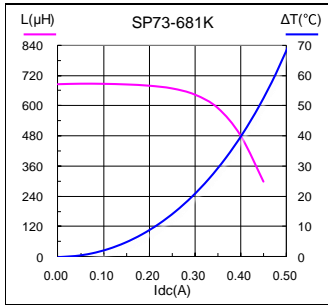
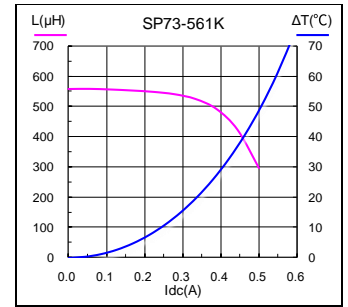
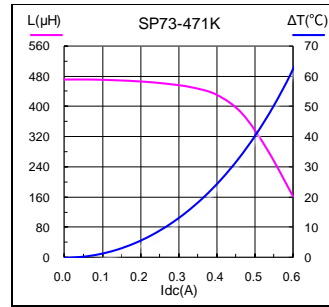
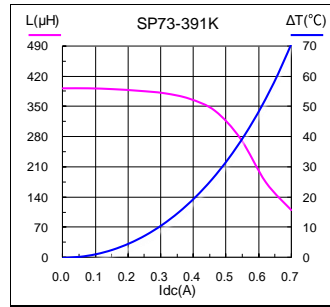
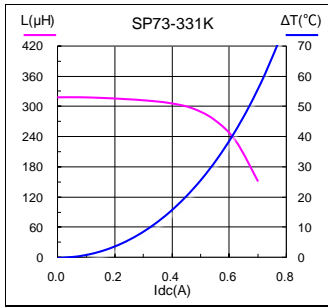
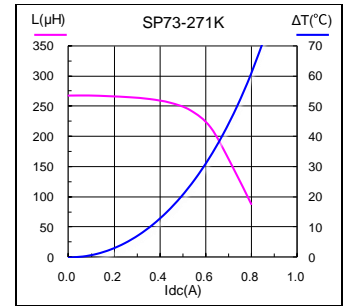
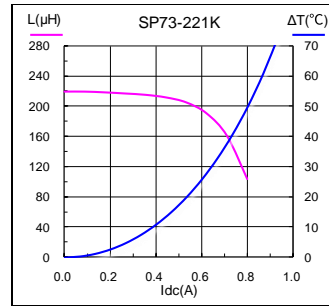
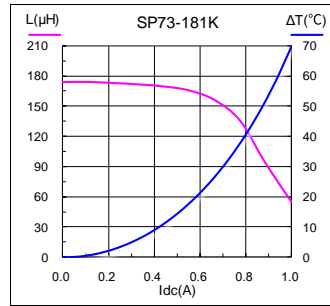
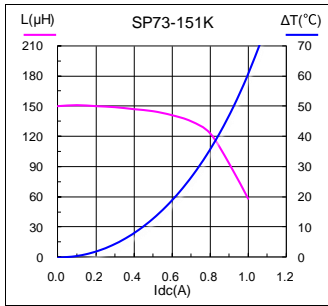
all will affect the product temperature. Please verify the product temperature in the final application.

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



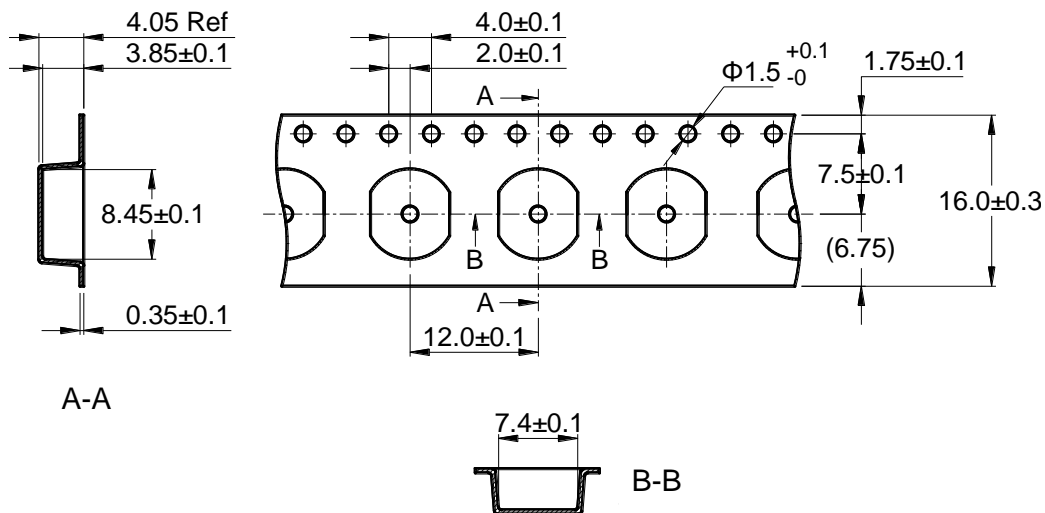


## 7 Packing specification

### 包装规格

#### 7.1 Carrier tape dimensions (mm)

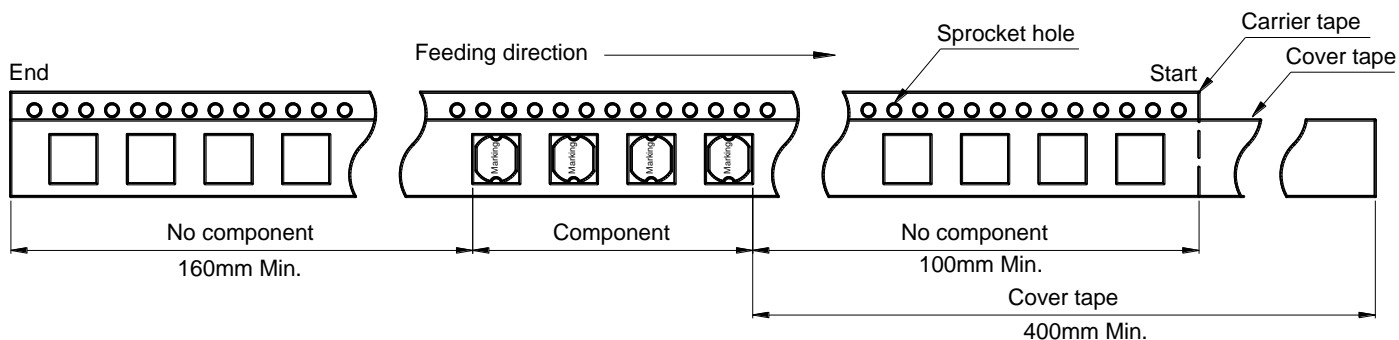
##### 载带尺寸



※ 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

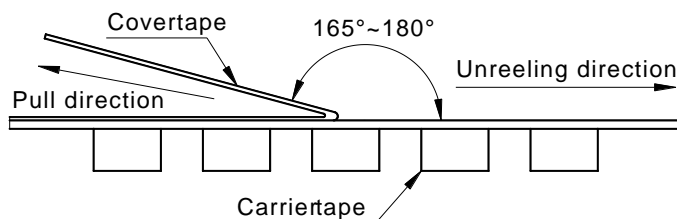
##### 捆包方向



#### 7.3 Cover tape peel off condition

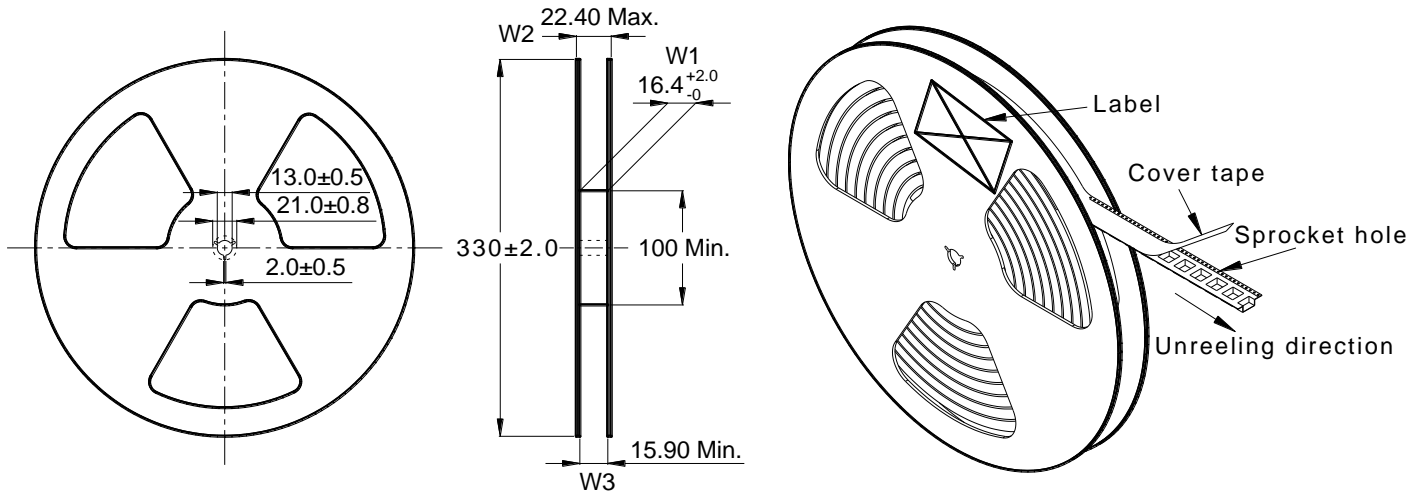
##### 盖带剥离条件

- 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
SP73	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

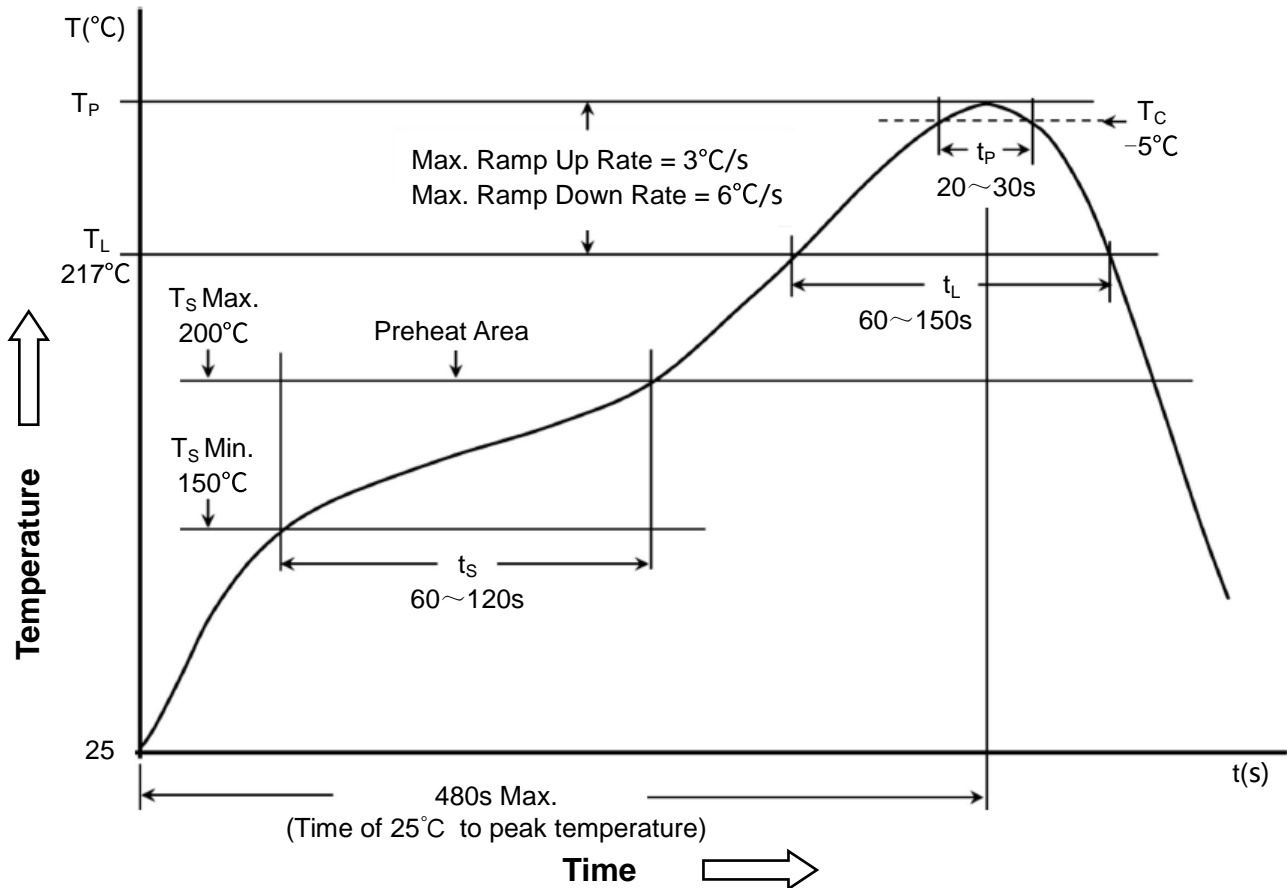
Shipping Label 运输标签
■ Customer Name 客户名称
■ Customer Part No. 客户型号
■ Supplier Part No. 供应商型号
■ Supplier Name 供应商名称
■ Country of origin 产品产地

## 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<sub>P</sub>)

封装体峰值温度(T<sub>P</sub>)分类

	Package Thickness 封装厚度	Package Volume 封装体积		
		<350 mm <sup>3</sup>	350~2000 mm <sup>3</sup>	>2000 mm <sup>3</sup>
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.