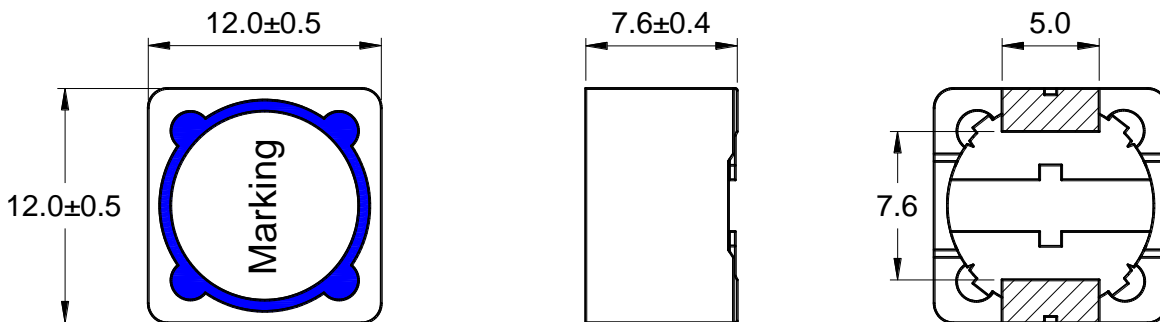




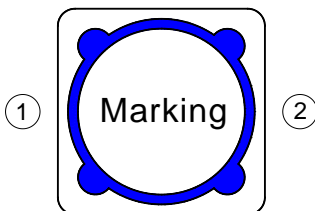
Outline: 产品概要

- 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, laptop, displayer, network communication equipment, and etc.
广泛应用于升降压转换器, 笔记本电脑, 显示器, 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)

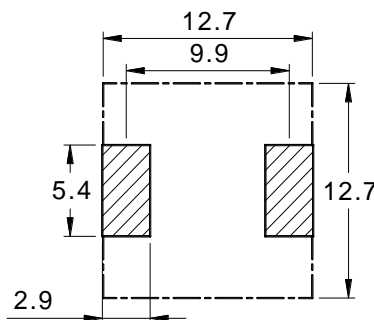
1 Appearance and dimensions (mm) 外形尺寸



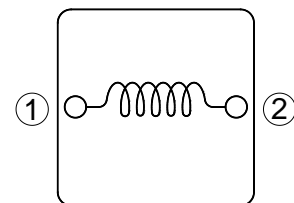
2 Marking 印字标识



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
SPRH127-6R8N	6.80 ± 30%	20.3	24.4	12.0	9.60	5.23
SPRH127-8R2N	8.20 ± 30%	22.2	26.6	10.9	8.72	5.08
SPRH127-100M	10.0 ± 20%	24.1	28.9	10.2	8.16	4.95
SPRH127-120M	12.0 ± 20%	28.6	34.3	9.00	7.20	4.61
SPRH127-150M	15.0 ± 20%	31.0	37.2	8.40	6.72	4.49
SPRH127-180M	18.0 ± 20%	32.9	39.5	7.80	6.24	4.42
SPRH127-220M	22.0 ± 20%	38.0	45.6	7.00	5.60	4.17
SPRH127-270M	27.0 ± 20%	43.0	51.6	6.20	4.96	3.97
SPRH127-330M	33.0 ± 20%	48.5	58.2	5.50	4.40	3.74
SPRH127-390M	39.0 ± 20%	60.8	73.0	5.20	4.16	3.34
SPRH127-470M	47.0 ± 20%	70.0	84.0	4.60	3.68	3.11
SPRH127-560M	56.0 ± 20%	75.4	90.5	4.30	3.44	3.00
SPRH127-680M	68.0 ± 20%	94.8	114	3.90	3.12	2.67
SPRH127-820M	82.0 ± 20%	105	126	3.60	2.88	2.54
SPRH127-101M	100 ± 20%	137	164	3.20	2.56	2.22
SPRH127-121M	120 ± 20%	176	211	2.90	2.32	1.96
SPRH127-151M	150 ± 20%	202	242	2.60	2.08	1.83
SPRH127-181M	180 ± 20%	258	310	2.40	1.92	1.62
SPRH127-221M	220 ± 20%	288	346	2.20	1.76	1.53
SPRH127-271M	270 ± 20%	370	444	2.00	1.60	1.35
SPRH127-331M	330 ± 20%	410	492	1.80	1.44	1.29
SPRH127-391M	390 ± 20%	508	610	1.65	1.32	1.15
SPRH127-471M	470 ± 20%	630	756	1.45	1.16	1.04
SPRH127-561M	560 ± 20%	760	912	1.35	1.08	0.94
SPRH127-681M	680 ± 20%	954	1,145	1.20	0.96	0.84
SPRH127-821M	820 ± 20%	1,065	1,278	1.10	0.88	0.80
SPRH127-102M	1,000 ± 20%	1,315	1,578	1.00	0.80	0.71

■ 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)。

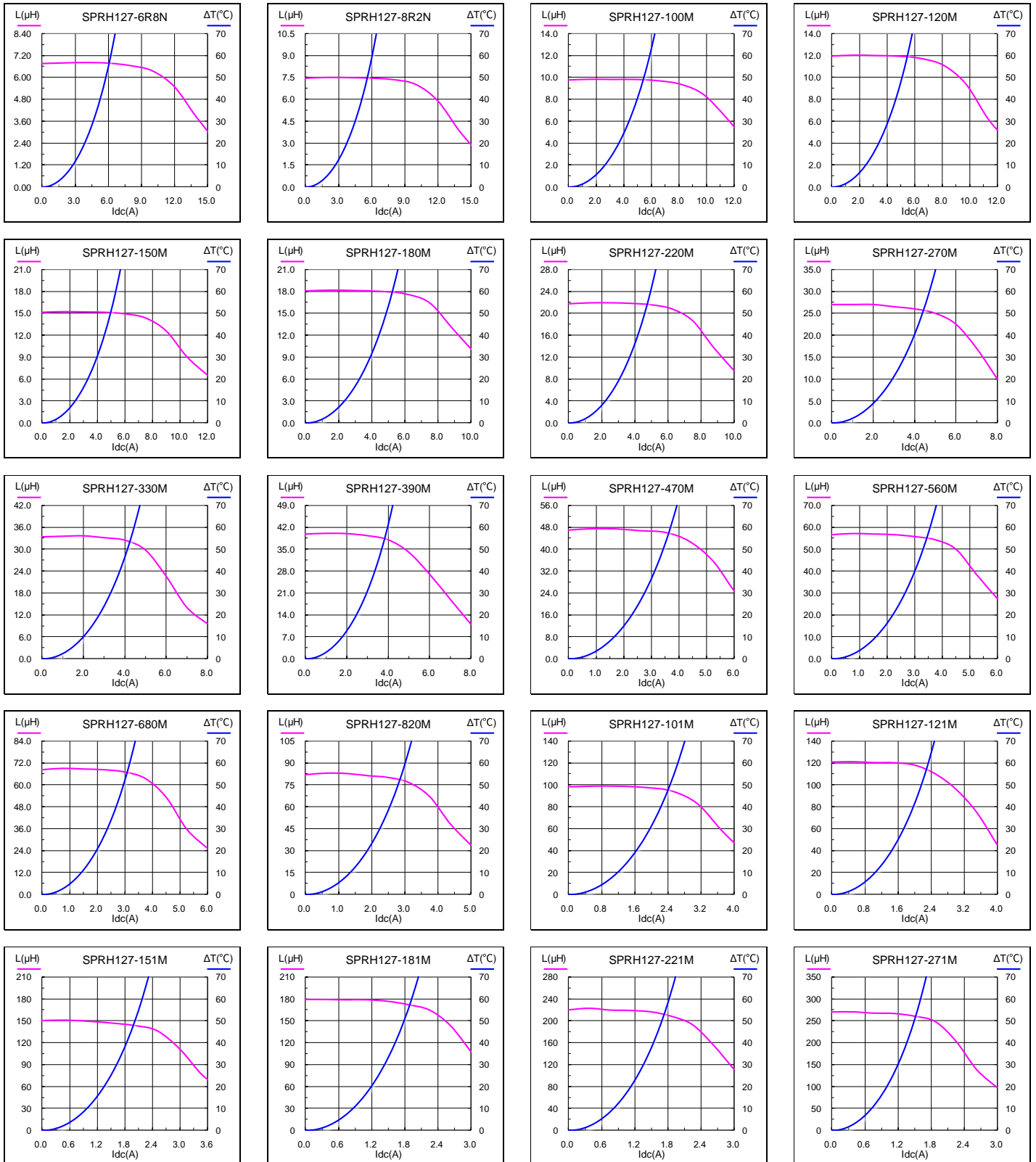
※ Special remind: Circuit design, component placement, PWB size and thickness, cooling system and etc.

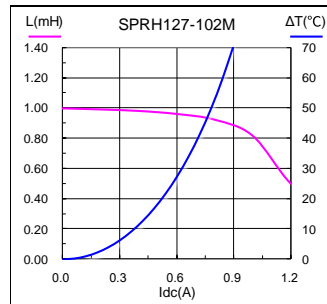
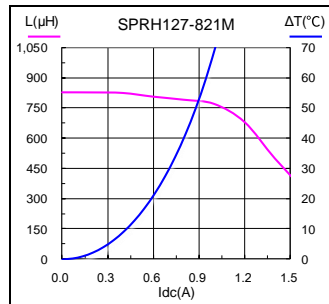
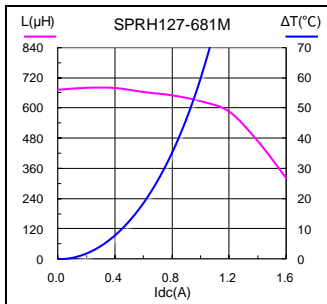
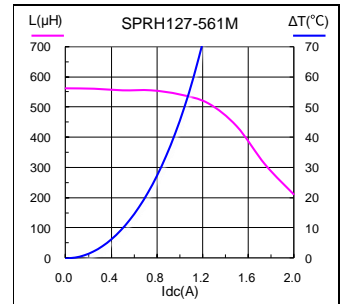
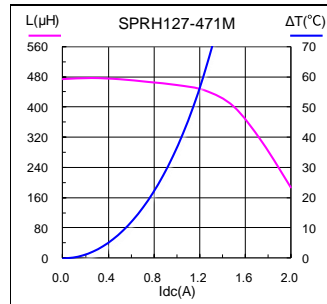
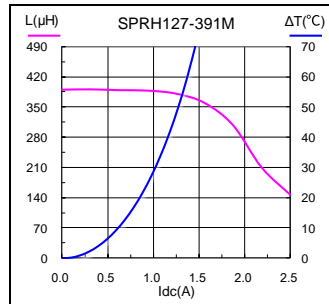
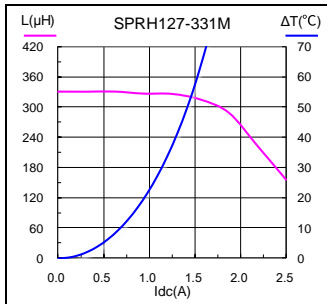
all will affect the product temperature. Please verify the product temperature in the final application.

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



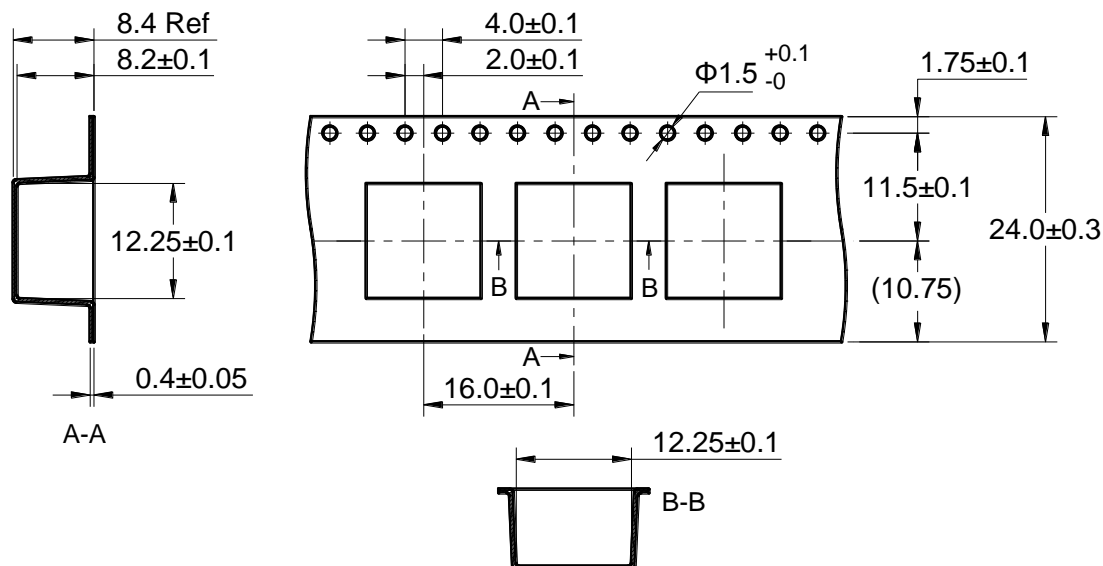


7 Packing specification

包装规格

7.1 Carrier tape dimensions (mm)

载带尺寸

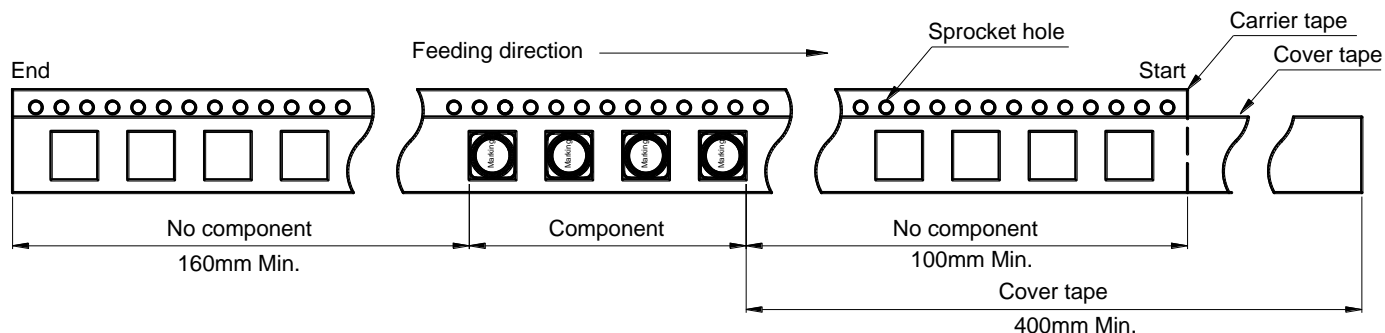


※ Packing is referred to the international standard IEC 60286-3.

包装参照国际标准 IEC 60286-3。

7.2 Tape direction

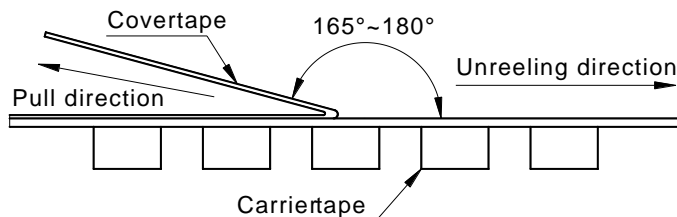
捆包方向



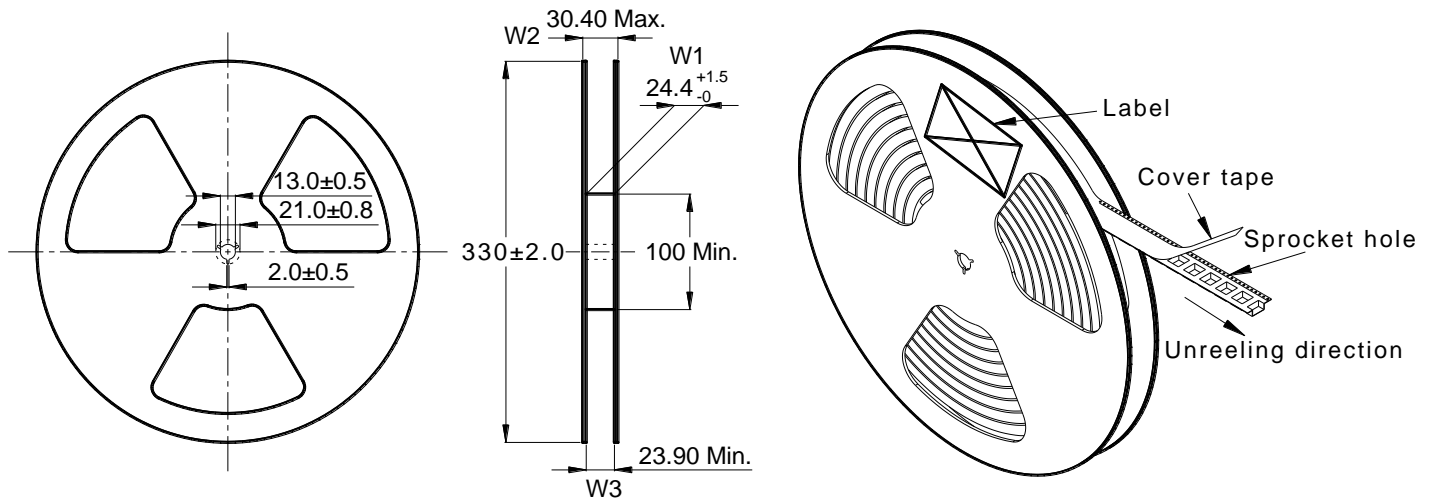
7.3 Cover tape peel off condition

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
内包装箱

■ 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
SPRH127	500pcs	(500×3) = 1500pcs	(1500×2) = 3000pcs

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

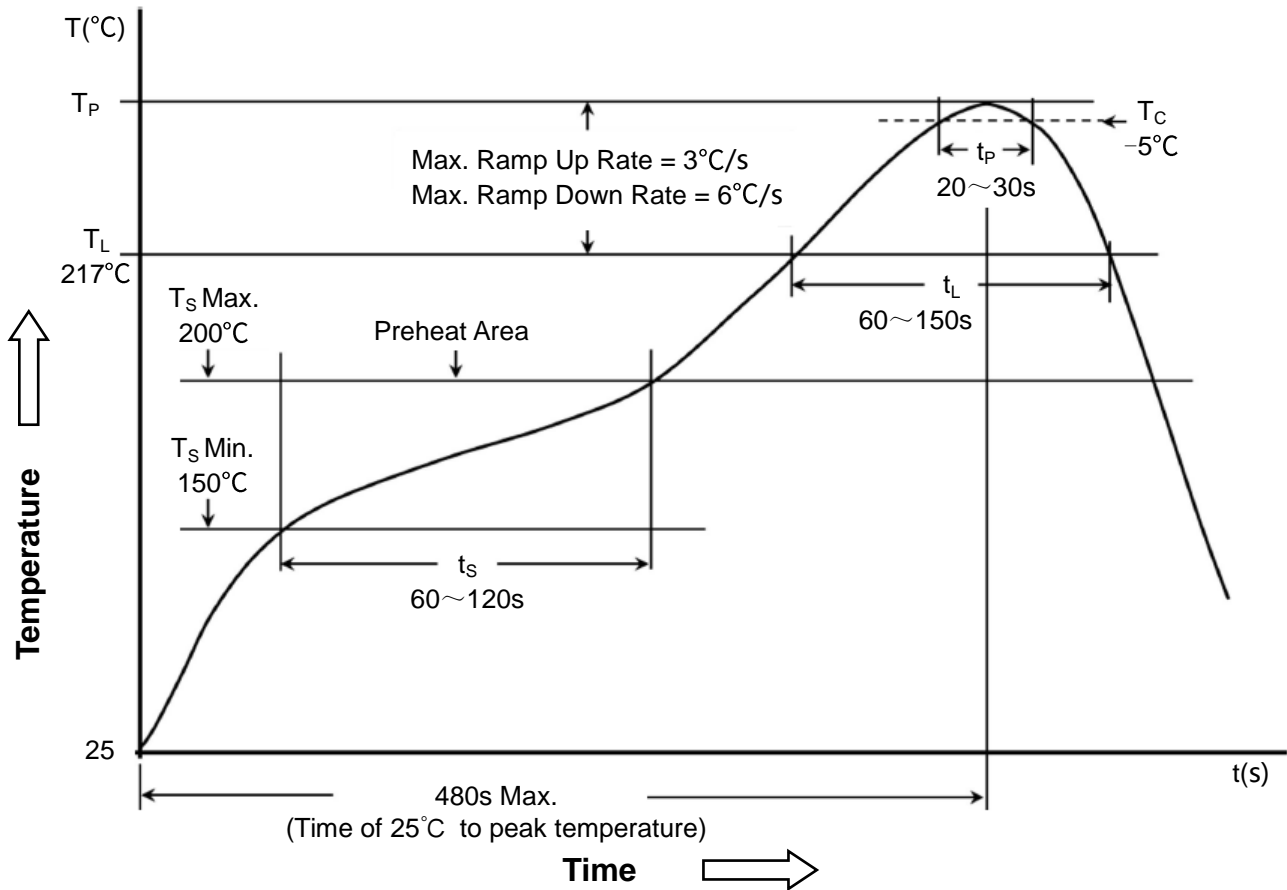
Shipping Label 运输标签
■ Customer Name 客户名称
■ Customer Part No. 客户型号
■ Supplier Part No. 供应商型号
■ Supplier Name 供应商名称
■ Country of origin 产品产地

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 (Tp)

封装体峰值温度(Tp)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。