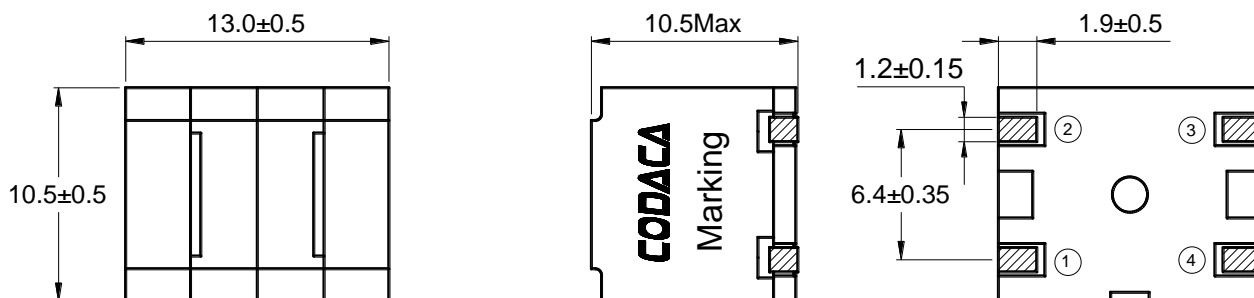




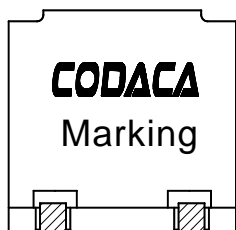
Outline: 产品概要

- Magnetic shielded structure: excellent resistance to electromagnetic interference(EMI)
磁屏蔽结构：抗电磁干扰(EMI)性能强
- Assemblage design, sturdy structure.
组立式设计，结构坚固。
- Low magnetic loss, low ESR, small parasitic capacitance.
低磁损，低阻抗，寄生电容小。
- Closed magnetic circuit, ultra low buzz noise, can high density mount.
磁路闭合，超低蜂鸣噪音，可高密度贴装。
- 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)

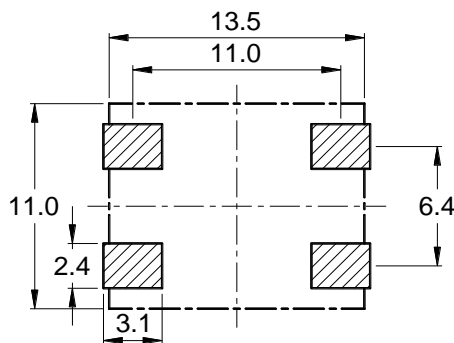
1 Appearance and dimensions (mm) 外形尺寸



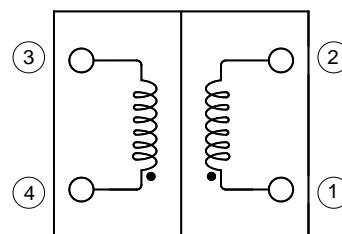
2 Marking 印字标识



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) (1-2)/(3-4) 电感值 ※1 ±20% | D.C.R. (mΩ) (1-2)/(3-4) 直流电阻 | | Saturation current (A) (1-2)/(3-4) 饱和电流 ※2 Typical | Temperature rise current (A) (1-2)/(3-4) 温升电流 ※3 Typical |
|----------------|--|------------------------------------|------|--|--|
| | | Typical | Max | | |
| CSD1013B-4R7M | 4.70 | 12.4 | 15.2 | 16.0 | 6.50 |
| CSD1013B-6R8M | 6.80 | 12.4 | 15.2 | 11.0 | 6.50 |
| CSD1013B-8R2M | 8.20 | 13.1 | 16.5 | 10.0 | 5.80 |
| CSD1013B-100M | 10.0 | 19.5 | 24.0 | 8.60 | 5.00 |
| CSD1013B-120M | 12.0 | 19.5 | 24.0 | 7.30 | 5.00 |
| CSD1013B-150M | 15.0 | 19.5 | 24.0 | 5.70 | 5.00 |
| CSD1013B-180M | 18.0 | 19.5 | 24.0 | 4.60 | 5.00 |
| CSD1013B-220M | 22.0 | 19.5 | 24.0 | 3.50 | 5.00 |

■ 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, 1V.

电感测试条件为 1kHz, 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 $\Delta T 40^{\circ}\text{C}$ ($T_a=25^{\circ}\text{C}$).

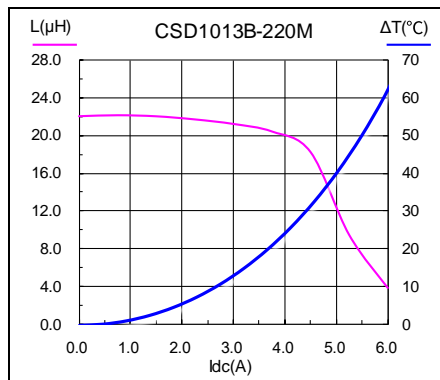
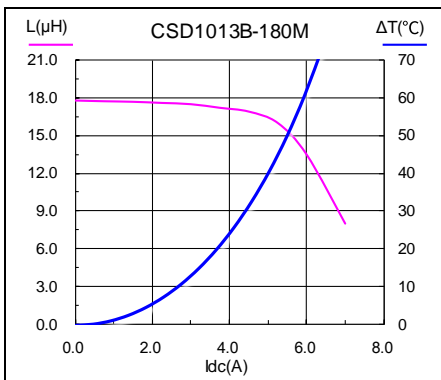
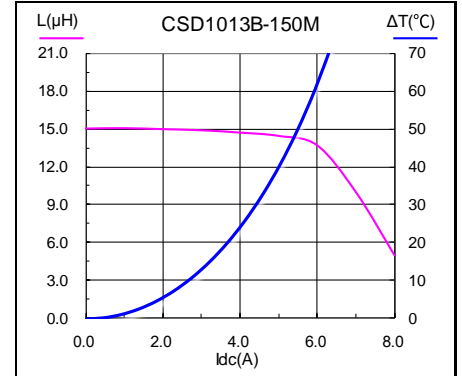
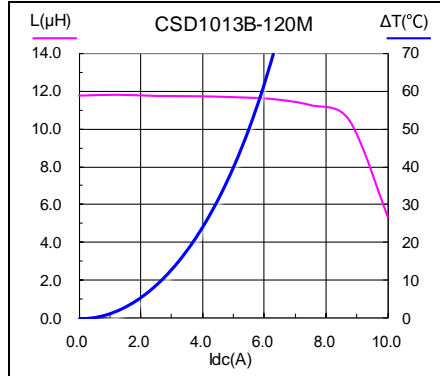
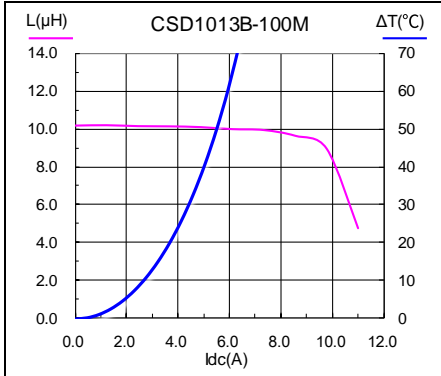
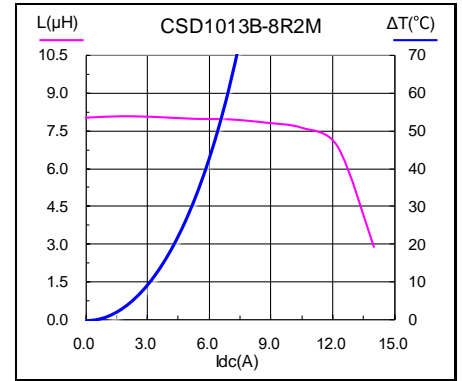
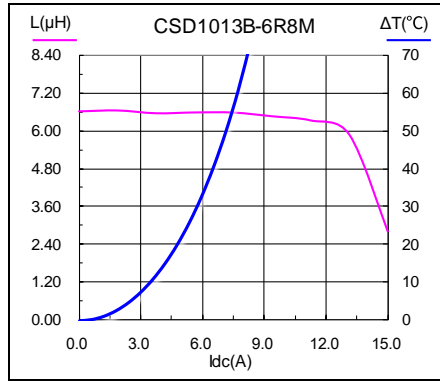
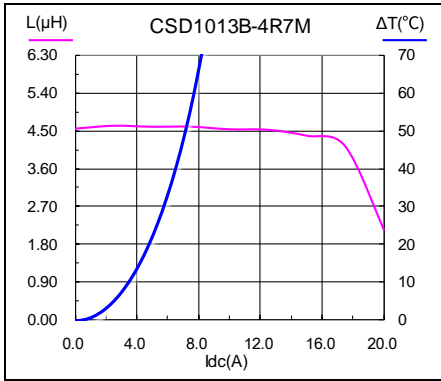
温升电流: 使产品温度上升到 $\Delta T 40^{\circ}\text{C}$ 时所加载的实际直流电流值 ($T_a=25^{\circ}\text{C}$)。

※ 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, 印刷电路板(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

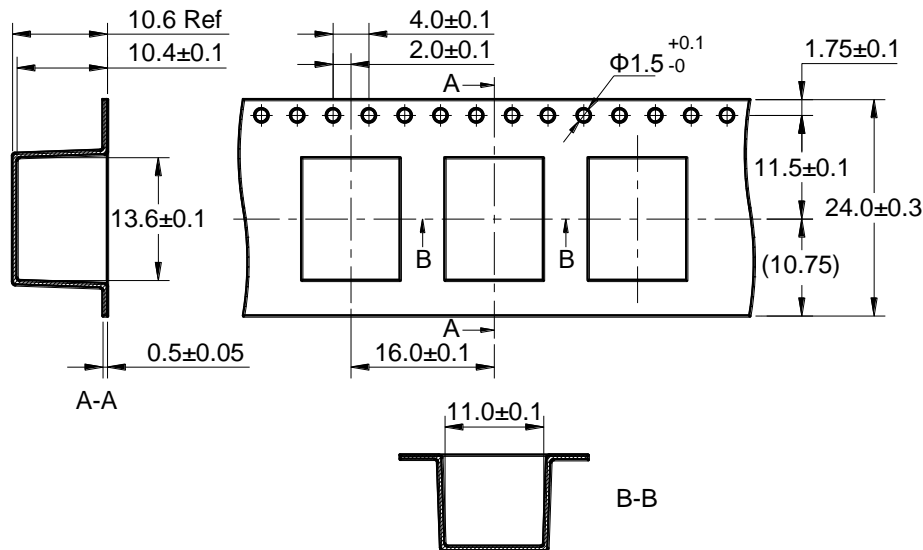


7 Packing specification

包装规格

7.1 Carrier tape dimensions (mm)

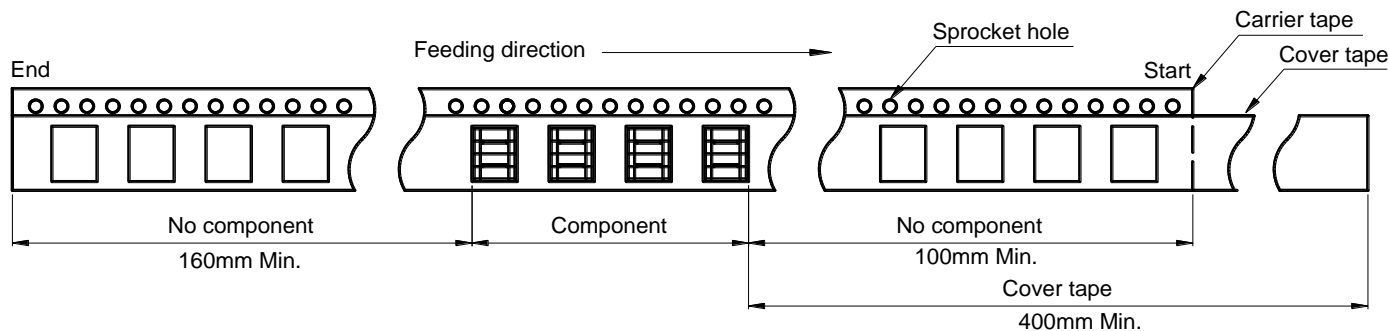
载带尺寸



※ 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

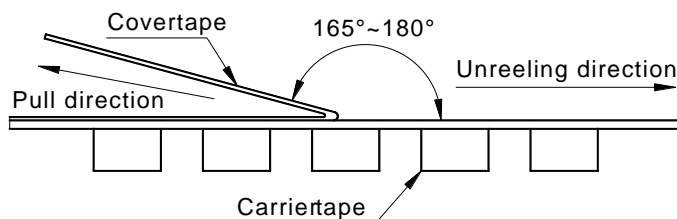
捆包方向



7.3 Cover tape peel off condition

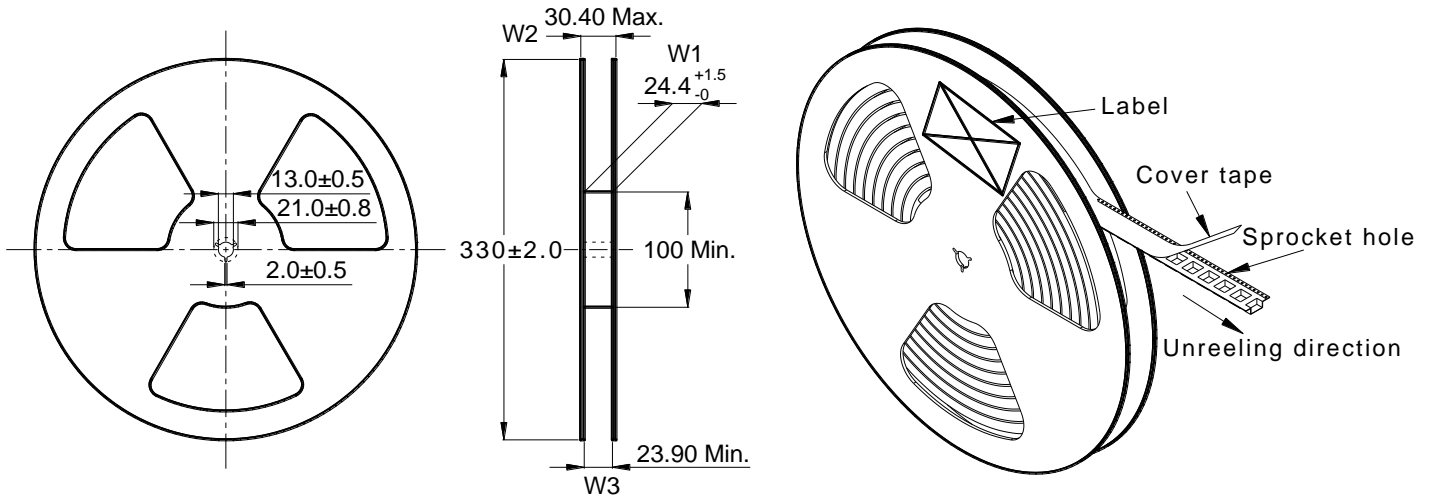
盖带剥离条件

- 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: 340×340×95mm
内包装盒

■ Out Carton : 355×355×385mm
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 |
|------------------------|---------------------------|----------------------------------|---------------------------------|
| CSD1013B | 300pcs | (300×2) = 600pcs | (600×3) = 1800pcs |

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 |

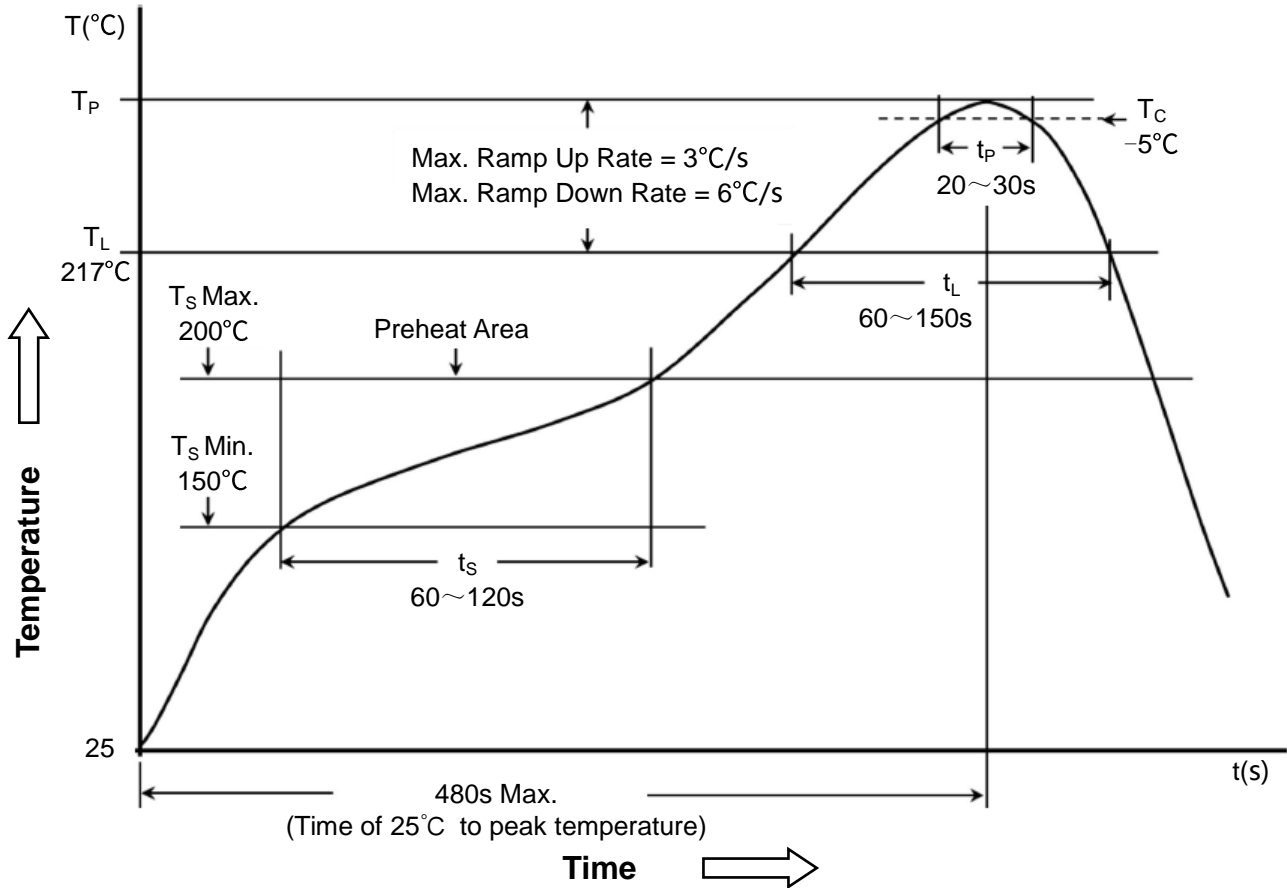
| Shipping Label 运输标签 |
|------------------------------|
| ■ Customer Name 客户名称 |
| ■ Customer Part No. 客户型号 |
| ■ Supplier Part No. 供应商型号 |
| ■ Supplier Name 供应商名称 |
| ■ Country of origin 产品产地 |

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。