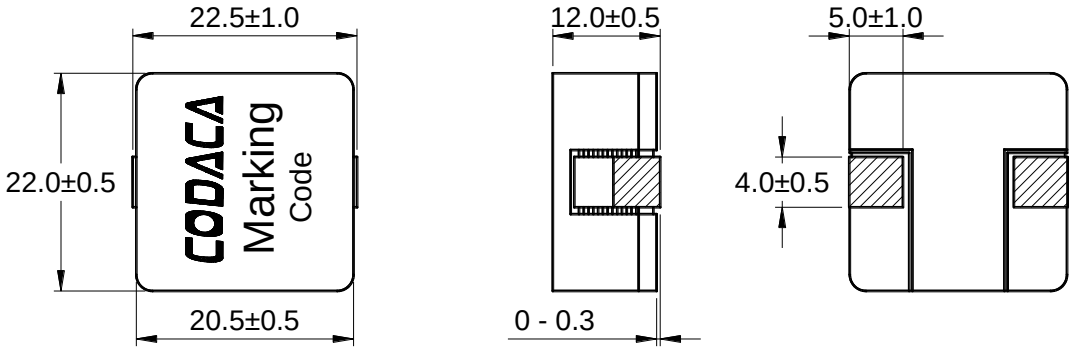
# High Current Power Inductor
# - CSB2212 Series

## Outline:
## 产品概要

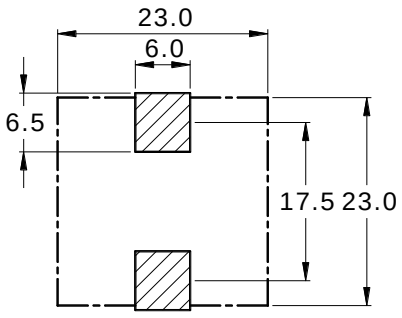
- Magnetic shielded structure: excellent resistance to electro magnetic interference(EMI)
  磁屏蔽结构：抗电磁干扰(EMI)性能强
- Flat wire winding, achieve a low D.C. Resistance.
  扁平线绕组，实现极低的直流电阻。
- Low loss, high efficiency, wide application frequency and application scope.
  低损耗，高效率，应用频率宽，适用范围广。
- Lightweight design, save space, suitable for high density SMT.
  轻薄型设计，节省空间，适合高密度贴装。
- Operating temperature : -40℃ ～ +125℃ (Including coil's temperature rise)
  工作温度：-40℃ ～ +125℃ (包含线圈发热)

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

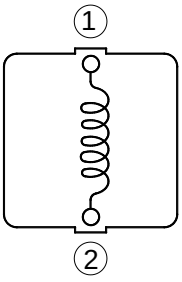



## 2 Marking
## 印字标识

## 3 Reference land pattern (mm)
## 参考基板尺寸




## 4 Schematic
## 原理图




**深圳市科达嘉电子有限公司**
SHENZHEN CODACA ELECTRONIC CO., LTD
Tel: +86 755 89585372 Fax: +86 755 89585280
E-mail: codaca@codaca.com.cn
http://www.codaca.com http://www.codaca.com.cn

## 5 Electrical characteristics
## 电气特性

| Part No.<br>型 号 | Inductance (μH)<br>电感值 ※1 | D.C.R. (mΩ)<br>直流电阻 | | Saturation current (A)<br>饱和电流 ※2 | Temperature rise current (A)<br>温升电流 ※3 |
|---|---|---|---|---|---|
| | ±20% | Typical | Max | Typical | Typical |
| CSB2212-4R7M | 4.70 | 1.83 | 2.10 | 32.0 | 32.0 |
| CSB2212-330M | 33.0 | 10.8 | 12.5 | 15.0 | 13.0 |

■ All data is tested based on 25℃ ambient temperature.
所有数据基于环境温度 25℃条件下测试。

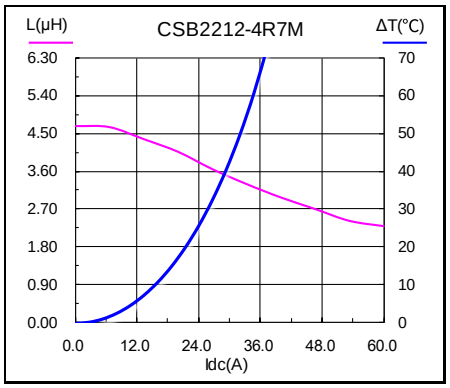
※1 Inductance measure condition at 100kHz, 0.1V.
电感测试条件为 100kHz, 0.1V。

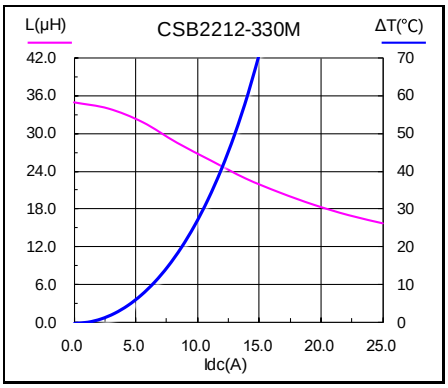
※2 Saturation current：the actual value of DC current when the inductance decrease 30% of its initial value.
饱和电流：电感值下降其初始值的 30%时所加载的实际直流电流值。

※3 Temperature rise current：the actual value of DC current when the temperature rise is ΔT50℃(Ta=25℃).
温升电流：使产品温度上升到 ΔT50℃时所加载的实际直流电流值(Ta=25℃)。

※ 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。

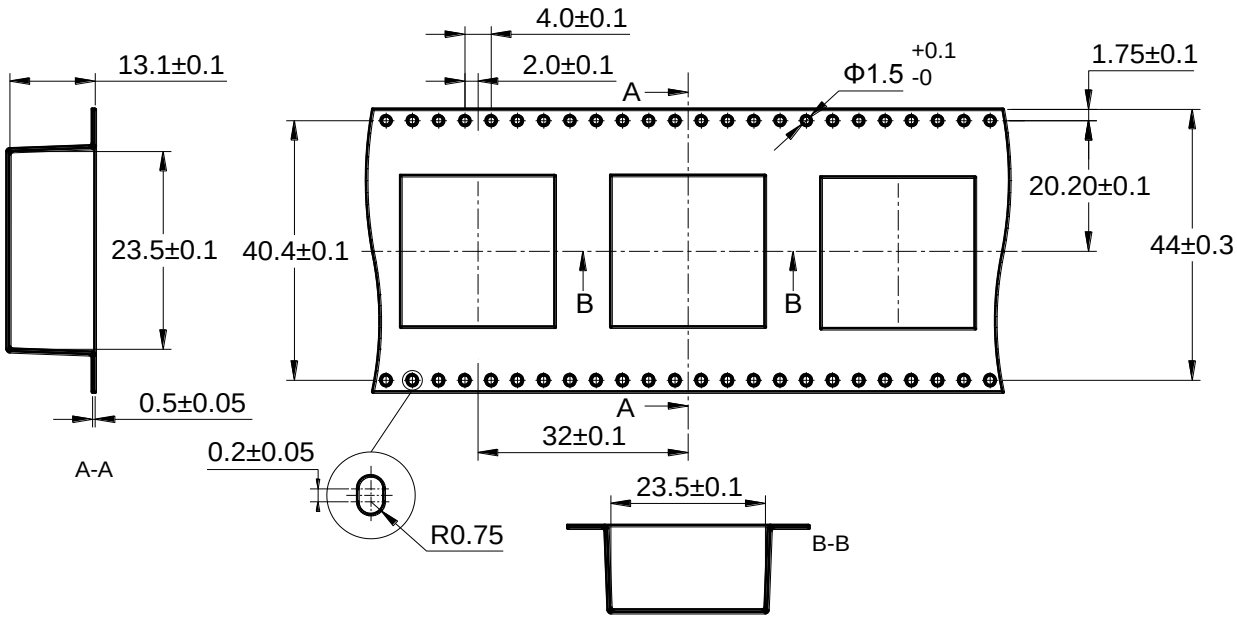
## 6 Saturation current VS temperature rise current curve
## 饱和电流 VS 温升电流曲线



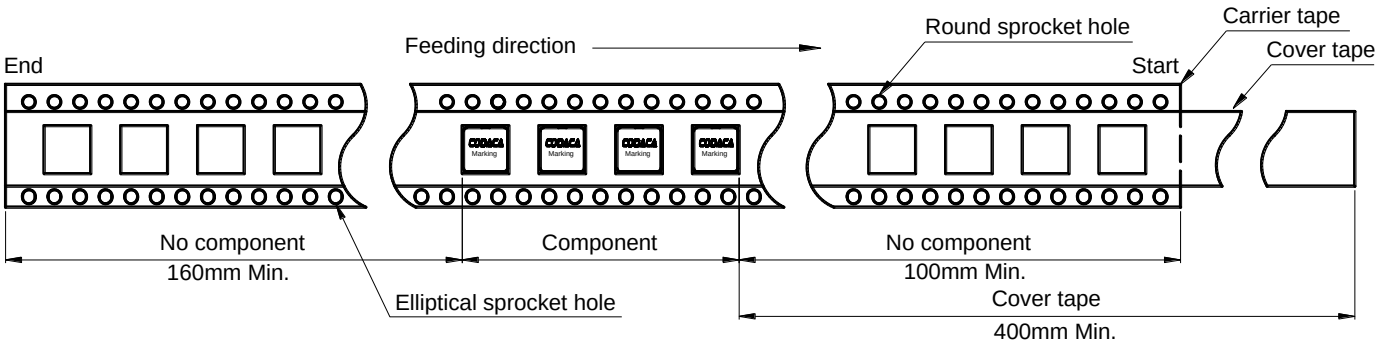
## 7 Packing specification
## 包装规格

### 7.1 Carrier tape dimensions (mm)
载带尺寸



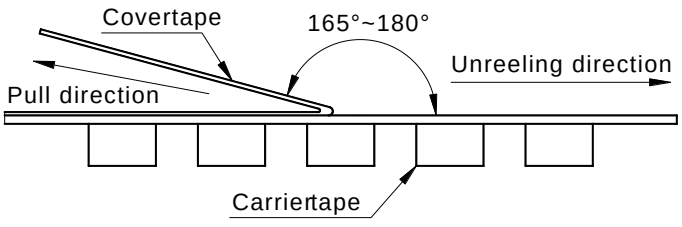

※ Packing is referred to the international standard IEC 60286-3.
包装参照国际标准 IEC 60286-3。

### 7.2 Tape direction
捆包方向

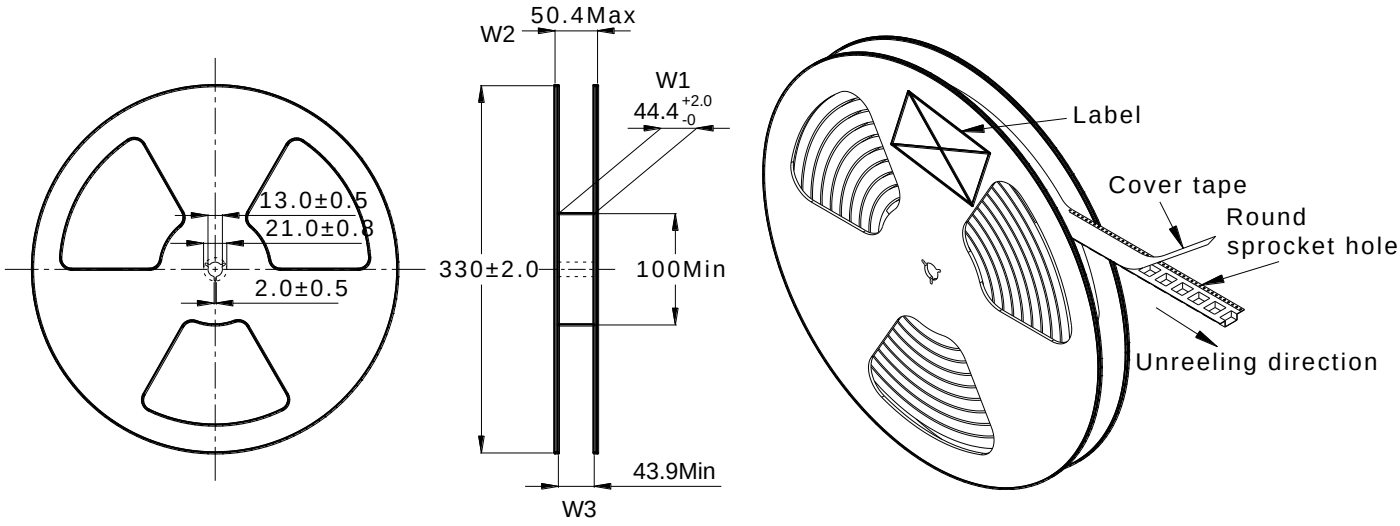



### 7.3 Cover tape peel off condition
盖带剥离条件

- 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：340×340×95mm
内包装盒

■ Out Carton ： 355×355×385mm
外包装箱

| Product Series<br>产品系列 | Quantity / Reel<br>数量 / 卷 | Inner Carton Quantity<br>内盒 包装数量 | Out Carton Quantity<br>外箱 包装总数量 |
|---|---|---|---|
| CSB2212 | 120pcs | (120×2) = 240pcs | (240×2) = 480pcs |

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**

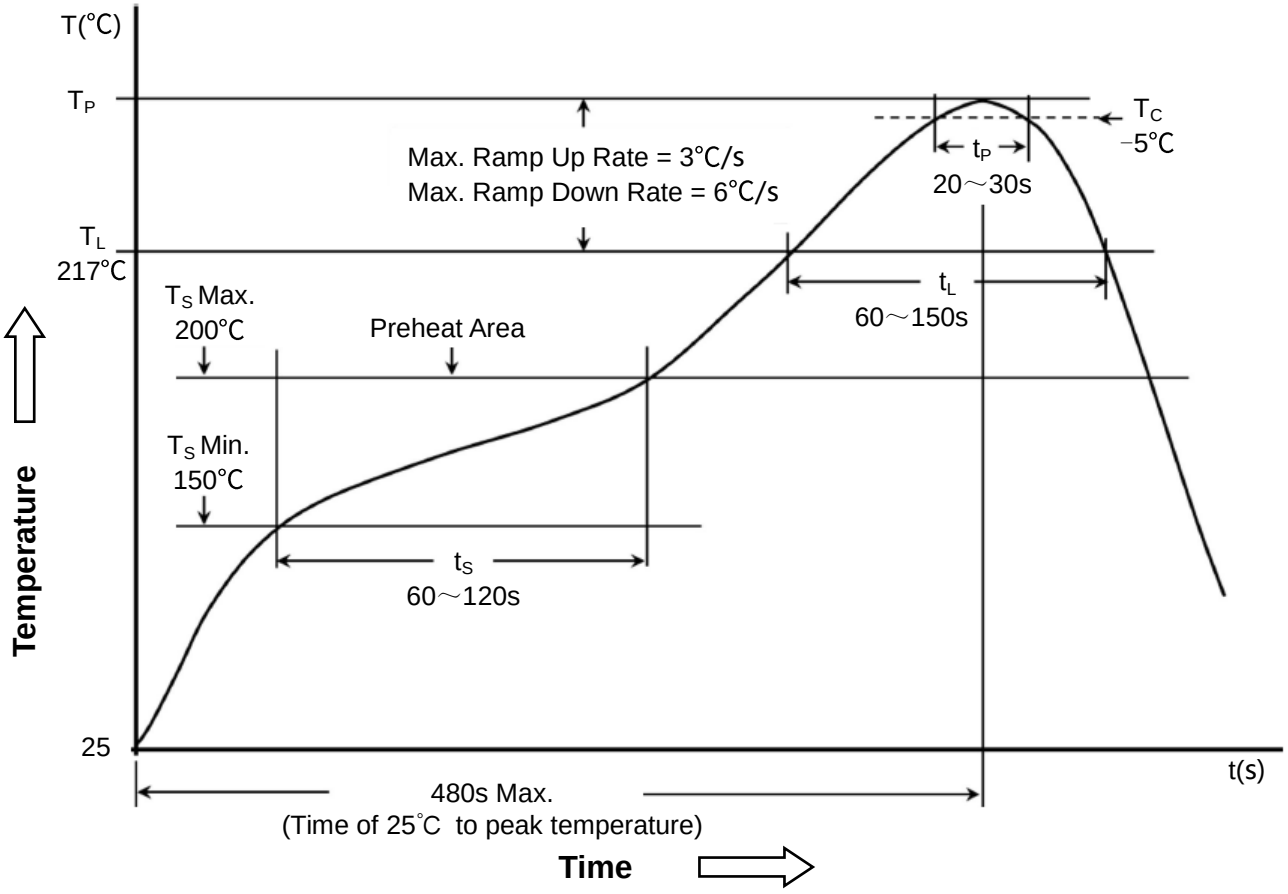
■ Part No.
产品型号
■ Electrical Information
产品电性信息
■ Quantity
数 量
■ Packing No.
包装流水号

**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。