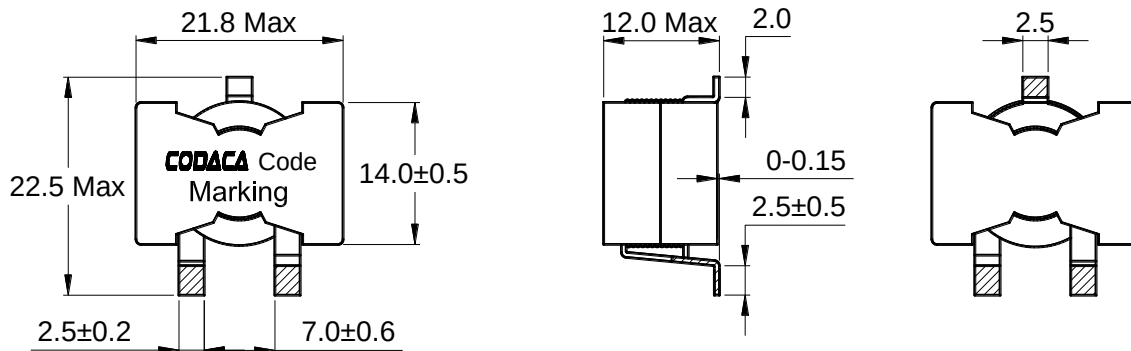




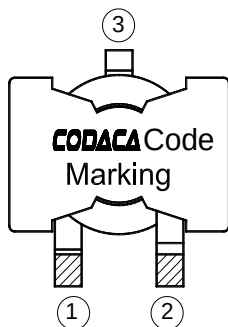
Outline: 产品概要

- Assemblage design, sturdy structure.
组立式设计，结构坚固。
- High inductance, high current, low magnetic loss, low ESR, small parasitic capacitance.
高电感值，大电流，低磁损，低阻抗，寄生电容小。
- Flat wire winding, achieve a low D.C. Resistance.
扁平线绕组，实现极低的直流电阻。
- Temperature rise current and saturation current is less influenced by environment.
温升电流及饱和电流受环境条件影响小。
- 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)

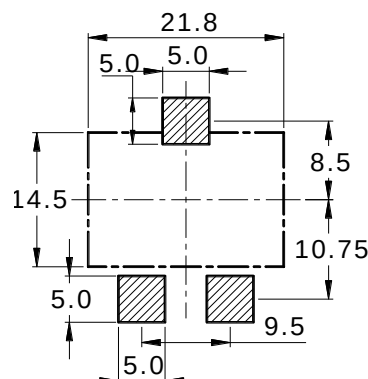
1 Appearance and dimensions (mm) 外形尺寸



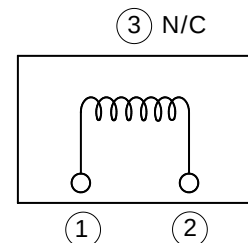
2 Marking 印字标识



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 ±20%	D.C.R. (mΩ) 直流电阻		Saturation current (A) 饱和电流 ※2 Typical	Temperature rise current (A) 温升电流 ※3 Typical
		Typical	Max		
CSCF2012-R47MC	0.47	0.45	0.55	75.0	45.0
CSCF2012-R82MC	0.82	0.45	0.55	55.0	45.0
CSCF2012-1R0MC	1.00	1.38	1.60	85.0	35.0
CSCF2012-1R5MC	1.50	1.38	1.60	60.0	35.0
CSCF2012-2R2MC	2.20	2.11	2.40	50.0	28.0
CSCF2012-3R3MC	3.30	2.11	2.40	35.0	28.0
CSCF2012-4R7MC	4.70	2.11	2.40	24.0	28.0
CSCF2012-6R8MC	6.80	2.11	2.40	16.0	28.0
CSCF2012-8R2MC	8.20	2.11	2.40	13.0	28.0
CSCF2012-100MC	10.0	5.87	7.00	13.0	16.0
CSCF2012-150MC	15.0	5.87	7.00	10.0	16.0
CSCF2012-220MC	22.0	8.17	9.80	10.0	14.0
CSCF2012-330MC	33.0	8.17	9.80	7.00	14.0

■ 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 $\Delta T 40^{\circ}\text{C}$ ($T_a=25^{\circ}\text{C}$).

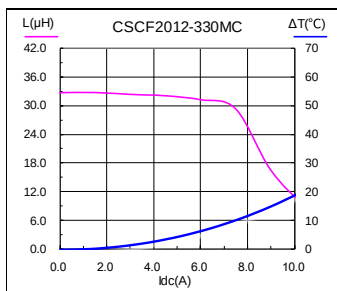
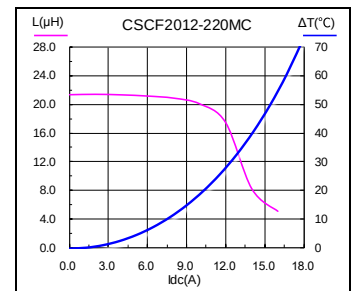
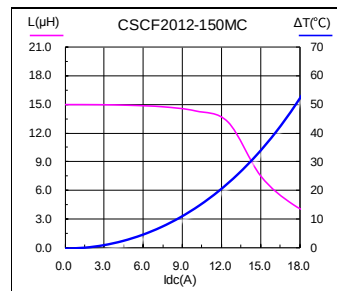
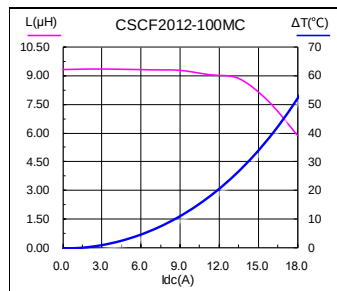
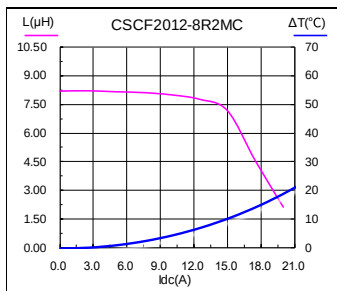
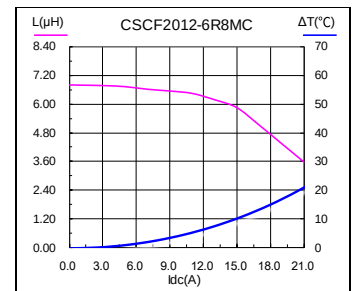
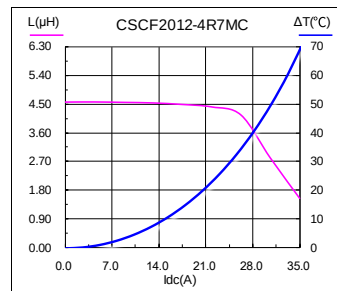
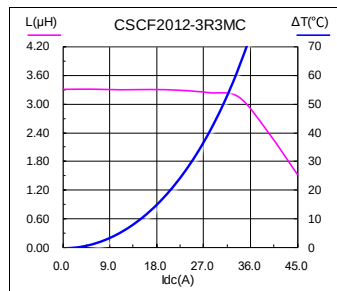
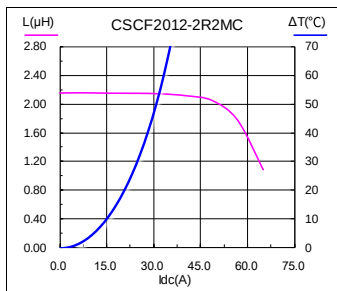
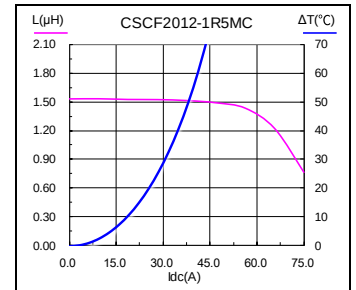
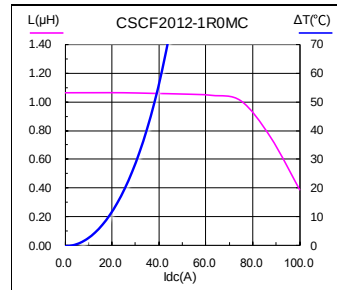
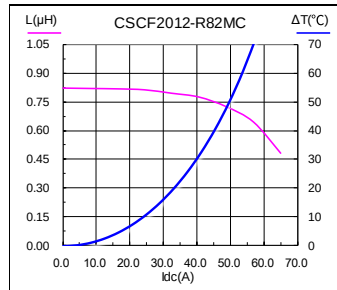
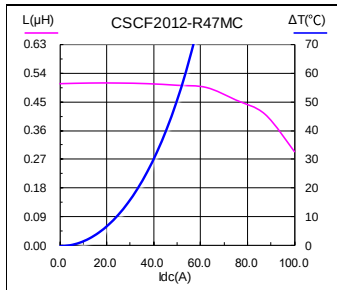
温升电流: 使产品温度上升到 $\Delta T 40^{\circ}\text{C}$ 时所加载的实际直流电流值($T_a=25^{\circ}\text{C}$)。

※ 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



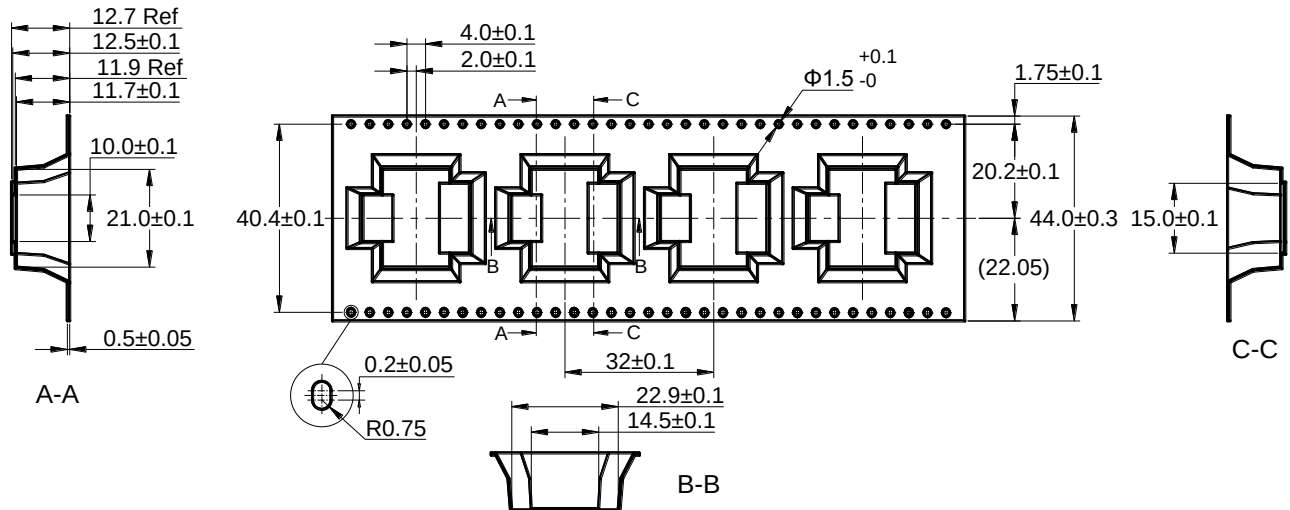
High Current Power Inductor - CSCF2012 Series

7 Packing specification

包装规格

7.1 Carrier tape dimensions (mm)

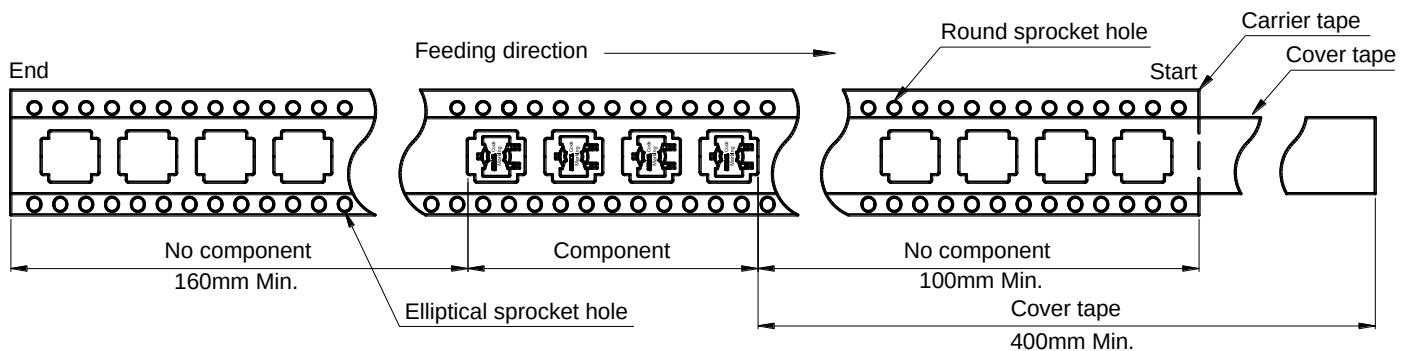
載帶尺寸



※ 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

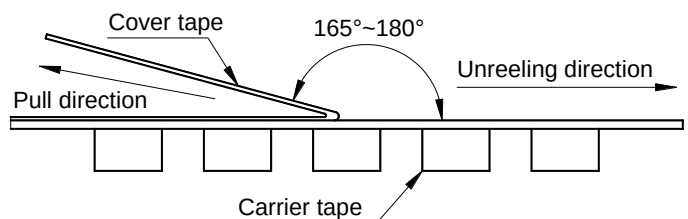
捆包方向



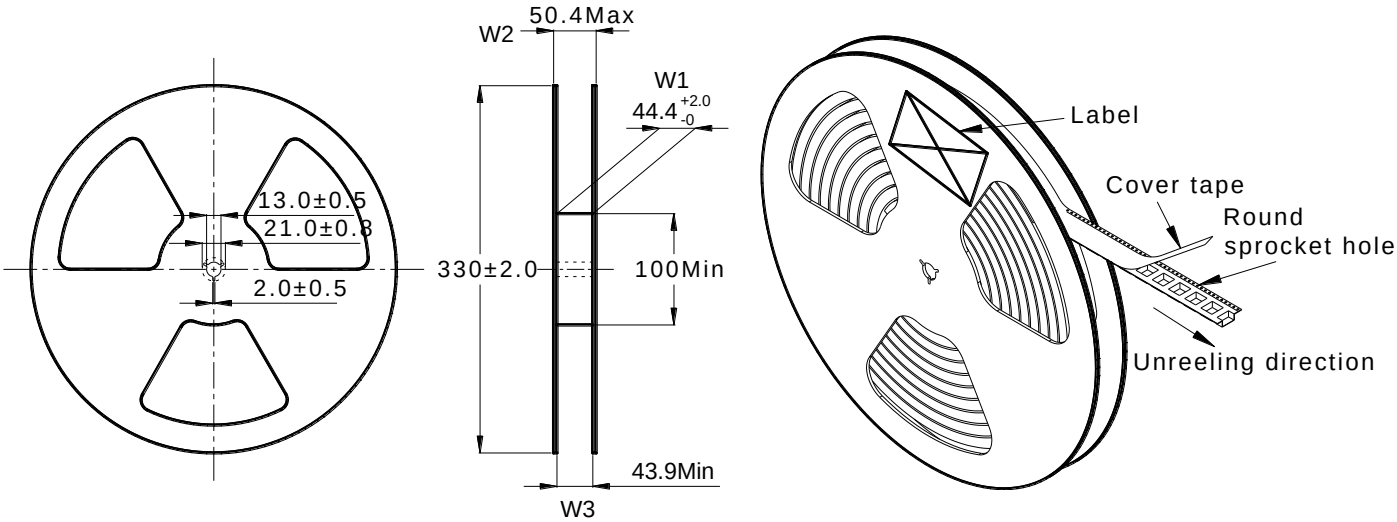
7.3 Cover tape peel off condition

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: 340×340×135mm
内包装盒

■ Out Carton : 360×360×295mm
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
CSCF2012	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

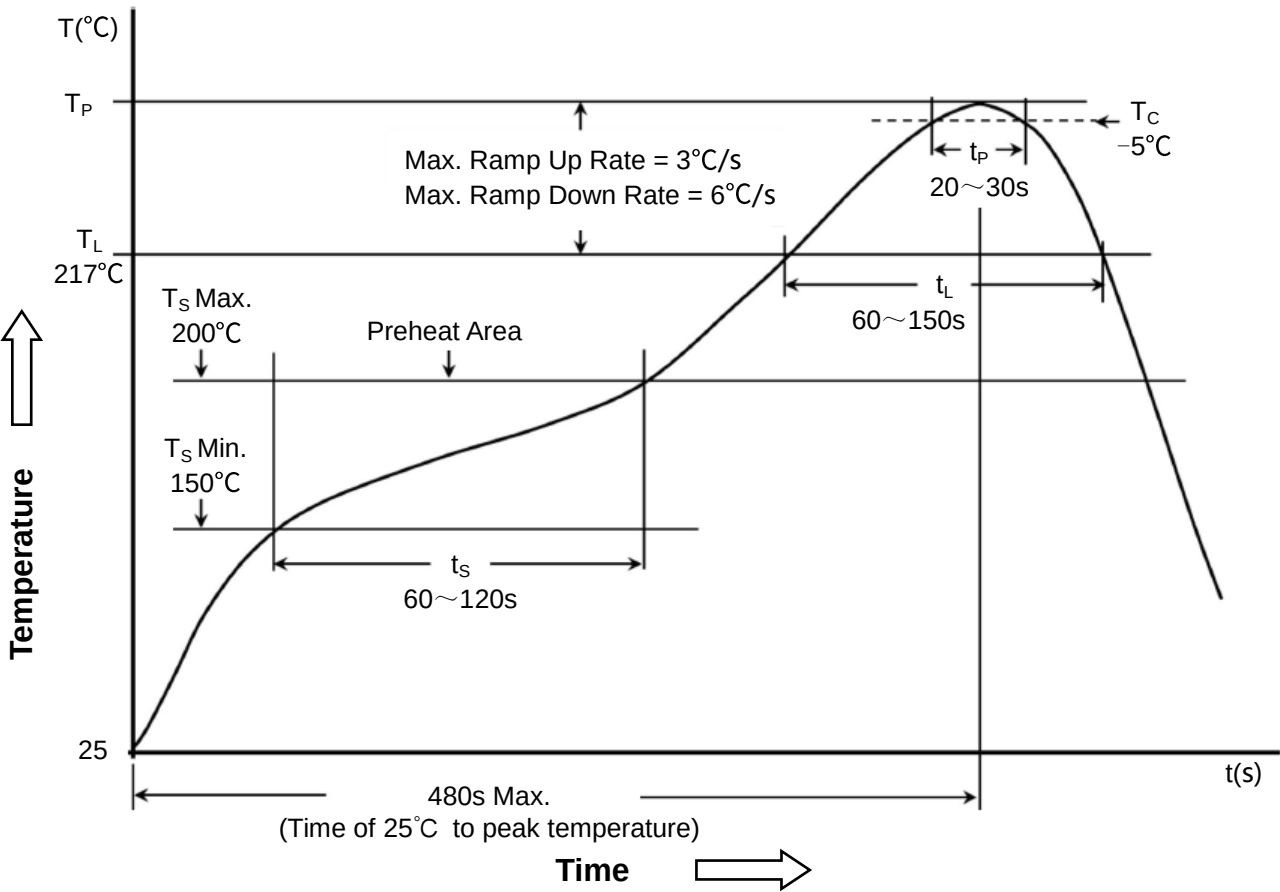
Shipping Label 运输标签
■ Customer Name 客户名称
■ Customer Part No. 客户型号
■ Supplier Part No. 供应商型号
■ Supplier Name 供应商名称
■ Country of origin 产品产地

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。