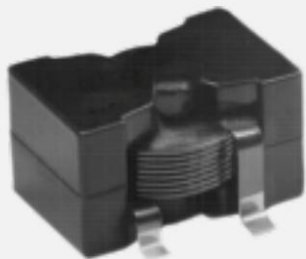


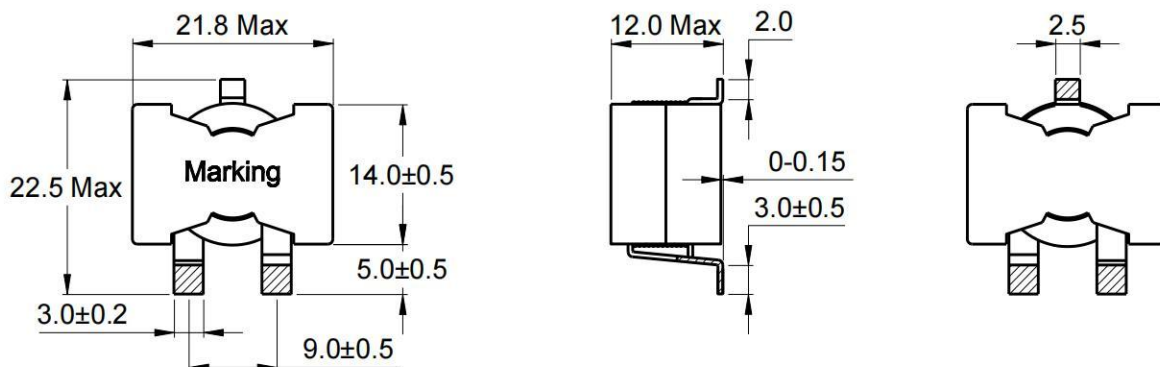


## Outline: 产品概要

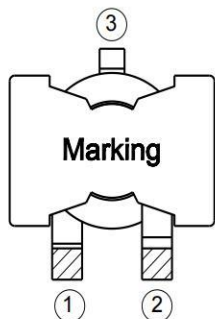
- Assemblage design, sturdy structure.  
组立式设计，结构坚固。
- High inductance, high current, low magnetic loss, low ESR, small parasitic capacitance.  
高电感值，大电流，低磁损，低阻抗，寄生电容小。
- Flat wire winding, achieve a low D.C. Resistance.  
扁平线绕组，实现极低的直流电阻。
- Low power loss, suitable for applications of wide temperature and frequency range.  
低损耗设计，适合宽频宽温环境应用。
- 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)



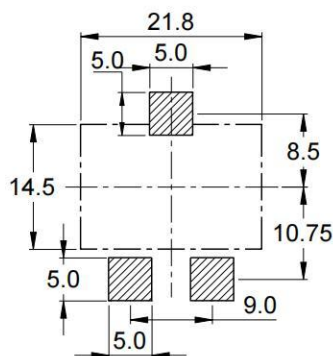
## 1 Appearance and Dimensions (mm) 外形尺寸(mm)



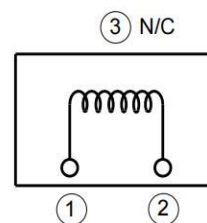
## 2 Marking 印字标识



## 3 Reference Land Pattern (mm) 参考基板尺寸 (mm)



## 4 Schematic 原理图



※ Date code will be changed by manufacture date.  
生产日期代码将根据生产日期变动。



## 5 Electrical Characteristics

### 电气特性

Part No. 型号	Inductance ( $\mu$ H) 电感值 ※1 $\pm 20\%$	D.C.R. (m $\Omega$ ) 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	0.40	0.48	75.0	45.0
CSCF2012-R82MC	0.82	0.40	0.48	55.0	45.0
CSCF2012-1R0MC	1.00	1.15	1.38	62.0	35.0
CSCF2012-1R5MC	1.50	1.15	1.38	60.0	35.0
CSCF2012-2R2MC	2.20	1.78	2.13	50.0	28.0
CSCF2012-3R3MC	3.30	1.78	2.13	35.0	28.0
CSCF2012-4R7MC	4.70	1.78	2.13	24.0	28.0
CSCF2012-6R8MC	6.80	1.78	2.13	18.0	28.0
CSCF2012-8R2MC	8.20	1.78	2.13	13.0	28.0
CSCF2012-100MC	10.0	4.80	5.76	13.0	16.0
CSCF2012-150MC	15.0	4.80	5.76	10.0	16.0
CSCF2012-220MC	22.0	6.80	8.16	10.0	14.0
CSCF2012-330MC	33.0	6.80	8.16	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 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  $\Delta T 40^{\circ}\text{C}$  ( $T_a = 25^{\circ}\text{C}$ ).

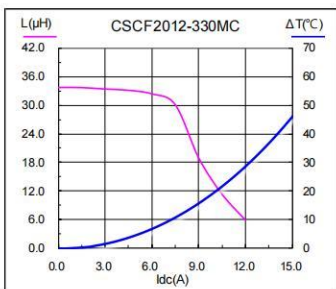
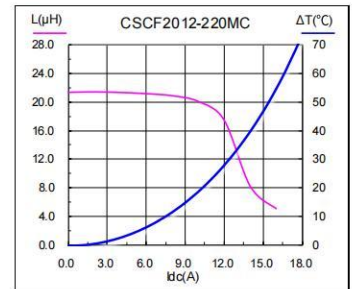
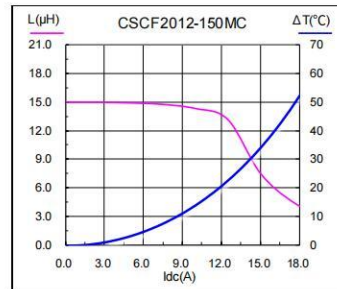
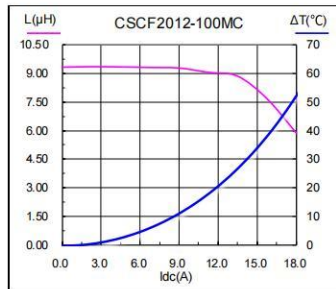
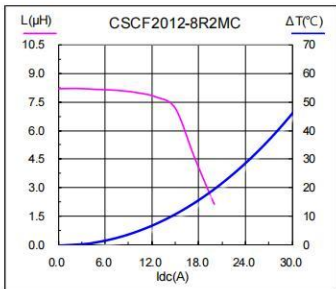
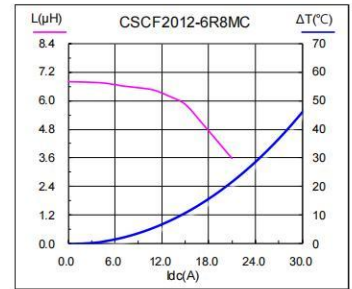
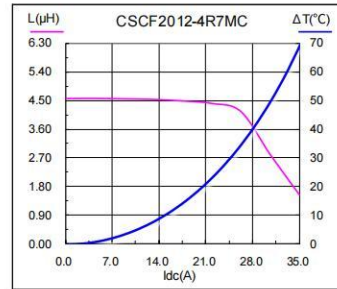
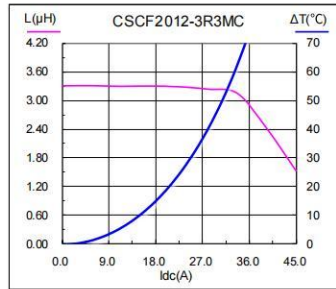
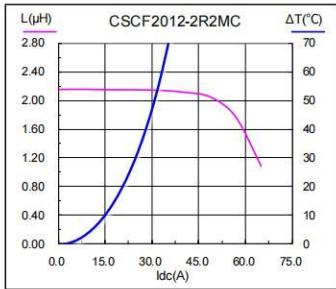
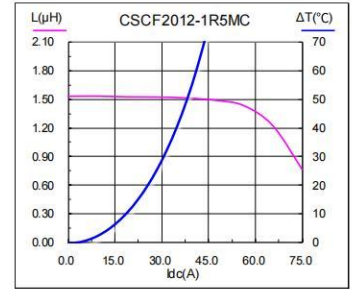
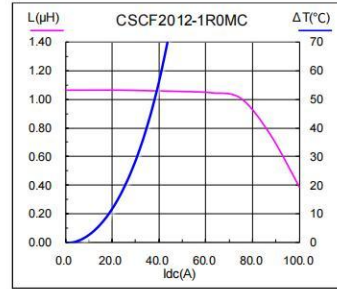
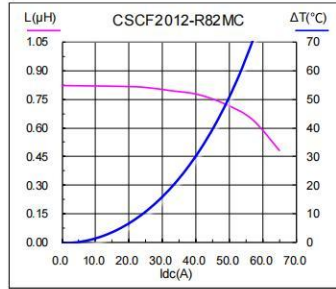
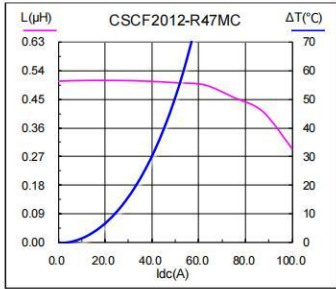
温升电流: 使产品温度上升到  $\Delta T 40^{\circ}\text{C}$  时所加载的实际直流电流值 ( $T_a = 25^{\circ}\text{C}$ )。

※ Special remind: Circuit design, component placement, PCB 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(PCB)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

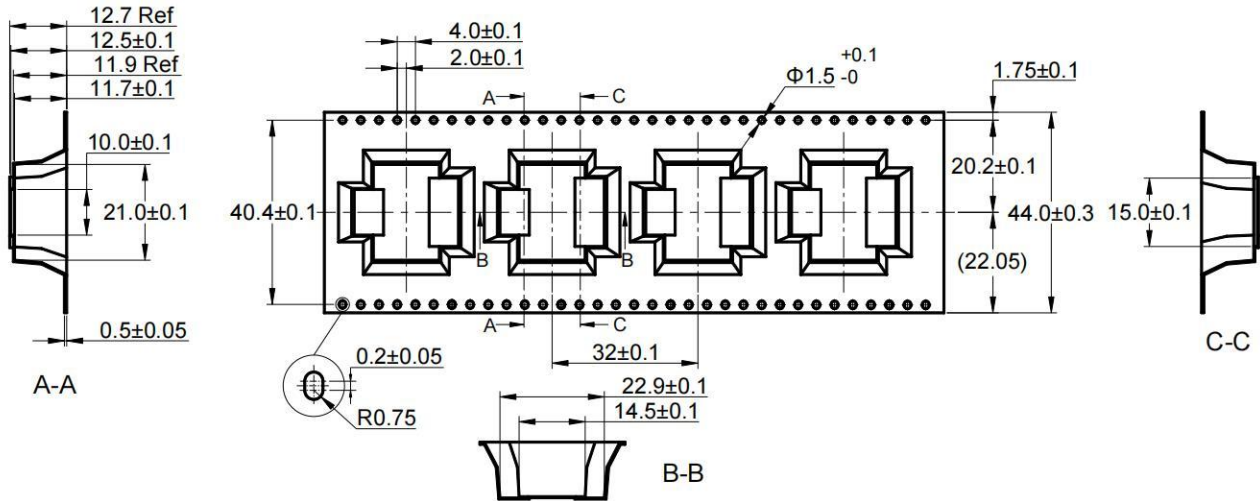


## 7 Packing specification

### 包装规格

#### 7.1 Carrier tape dimensions (mm)

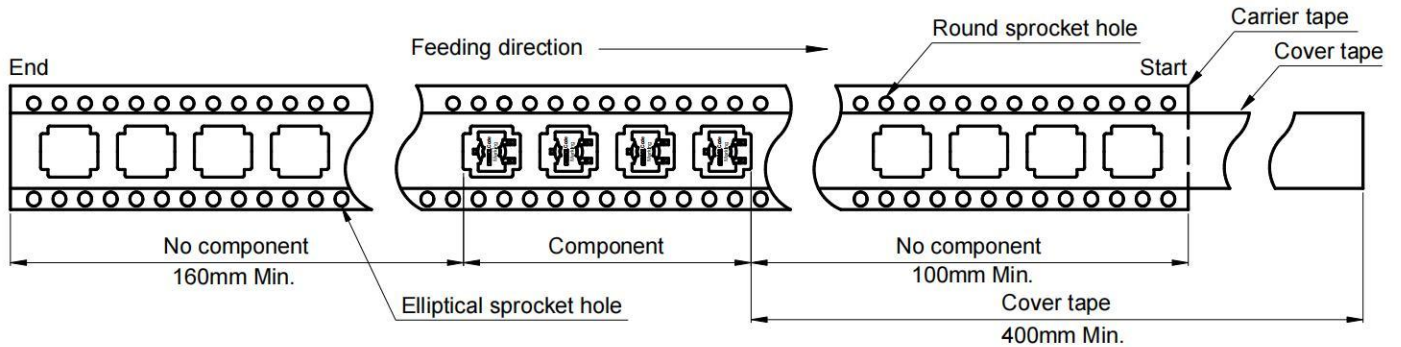
载带尺寸



※ 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

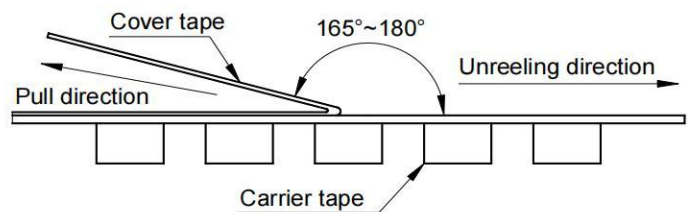
捆包方向



#### 7.3 Cover tape peel off condition

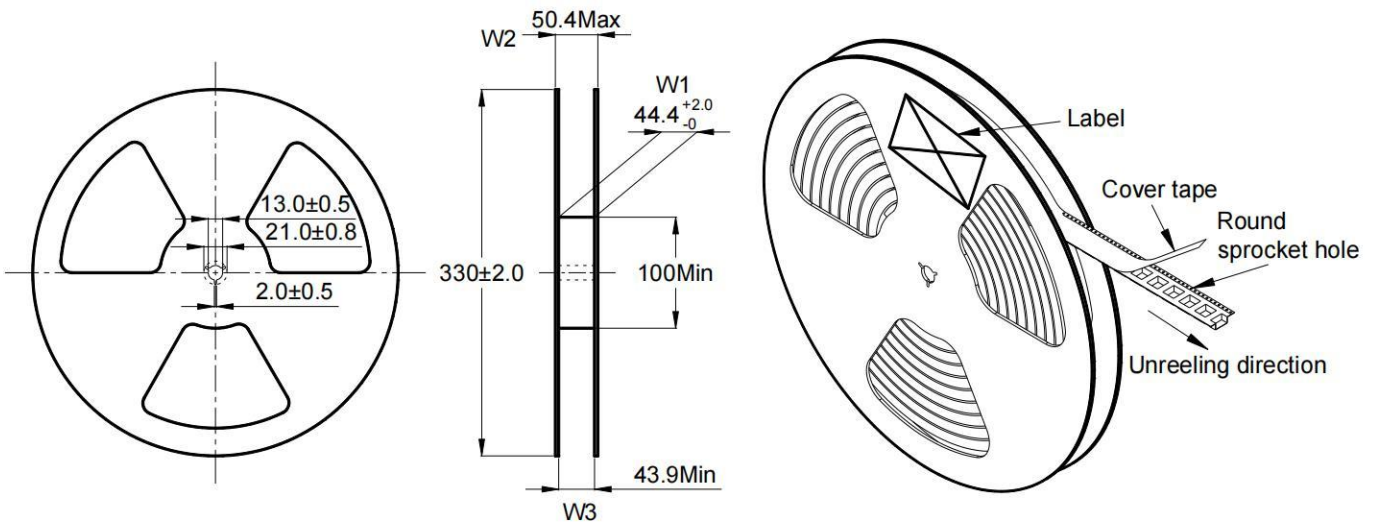
盖带剥离条件

- 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  $300 \pm 10$  mm/min.  
参考剥离速度  $300 \pm 10$  mm/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
■ Packing No. 包装流水号
■ Quantity 数量
■ Shipment Date 出货日期
■ Part No. 产品型号
■ Customer Part No. 客户型号
■ Customer Po No. 客户订单号

Shipping Label 运输标签
■ Packing No. 包装流水号
■ Quantity 数量
■ Shipment Date 出货日期
■ Part No. 产品型号
■ Customer Part No. 客户型号
■ Customer Po No. 客户订单号

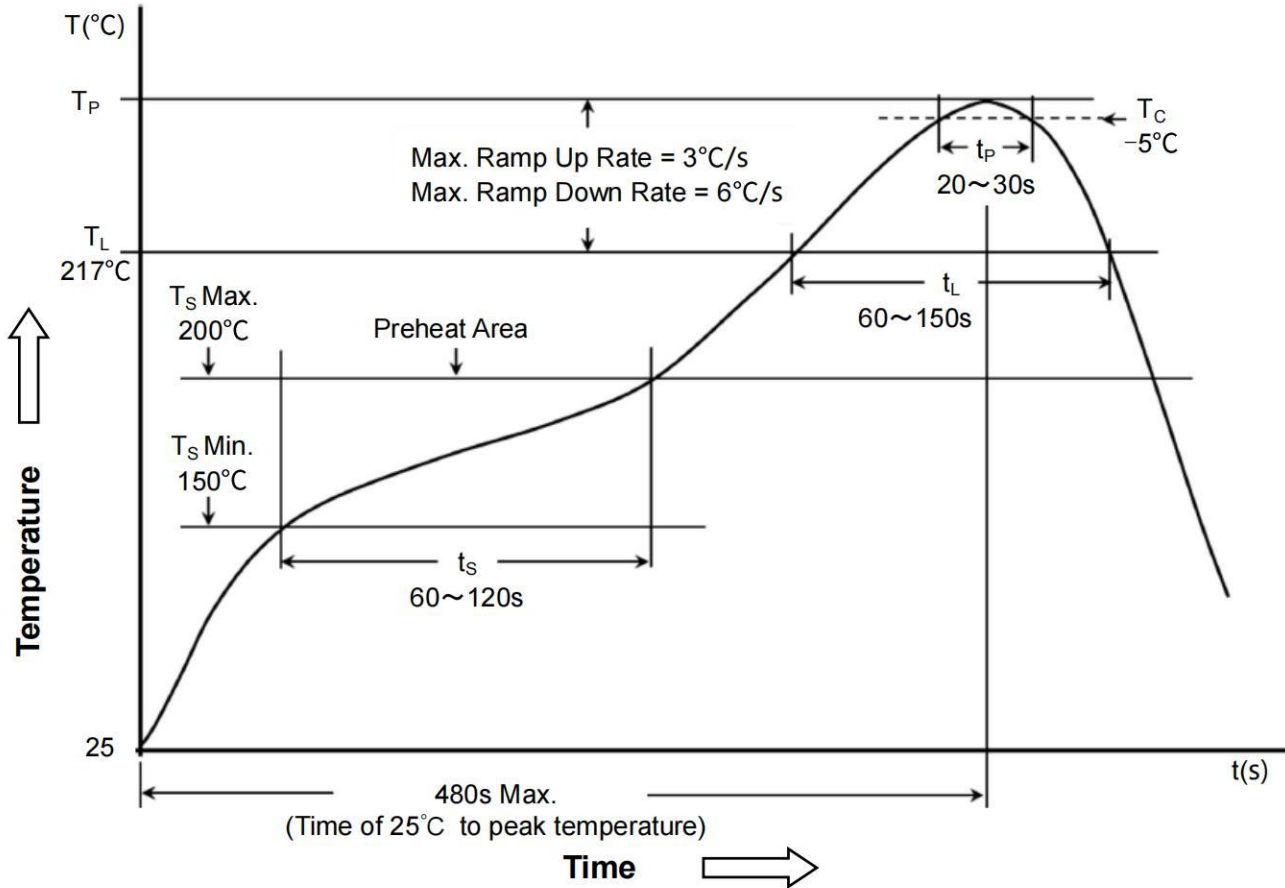


## 8 Soldering Specification

### 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。