# 制品规格书
SPECIFICATION FOR APPROVAL

| | | | |
|---|---|---|---|
| 产品编码 P/N | PSCLAQ0905 Series | 测试设备 TEST INSTRUMENT | Keysight:E4991B<br>Chroma:16502 3302 |
| 产品系列 Series | 共模线性滤波器 | 测试频率 TEST FREQUENCY | 参考规格书内定义 |

| | | |
|---|---|---|
| 客户名称 Customer | : | |
| 客户编码 Customer P/N | : | |
| 产品系列 Series | : | 共模线性滤波器<br>Common Mode Linear Filter |
| 产品编码 Supplly P/N | : | PSCLAQ0905 Series |
| 发版号 Version | : | A3.0 |
| 承认日期 Endorsement Date | : | 2026-7-5 |
| 备注 Note | : | |

| 谱罗德电子科技（深圳）有限公司 PuLuoDe Electronic Technology (Shenzhen) Co. LTD | |
|---|---|
| 制作 APPROVED | Ben |
| 审查 CHECKED | Yuki |
| 确认 PREPARED | Peter |

| 客户承认 Customer Approval |
|---|
| |

客户签章

A3.0

# 修订记录
REVISION RECORD

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| Version | REVISON ITEM | BEFORE REVISON | AFTER REVISON | DATE |
|---|---|---|---|---|
| A3.0 | | | | 2026-7-5 |
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谱罗德制作发布

# 封装尺寸
Dimension

| | | | |
|---|---|---|---|
| 产品编码 P/N | PSPOCI3225C Series | 测试设备 TEST INSTRUMENT | Keysight:E4991B<br>Chroma:16502 3302 |
| 产品系列 Series | POC电感 | 测试频率 TEST FREQUENCY | 参考规格书内定义 |

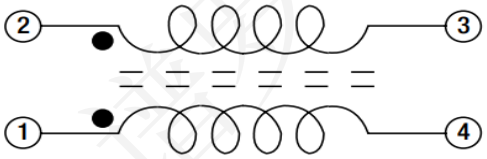
## 产品特点
**Features**

¤ 产品薄，尺寸小，额定电流最大可达1.6A
Low profile，Small size and the rated current up to 1.6A

¤ 适用于10KHz~500MHz频率的滤波
EMI suppression range：10KHz~500Mhz

¤ SMD结构便于SMT生产自动化贴片
SMD structure is convenient for SMT production automation patch

## 电路图
Schematic




◎ 电感内置两组线圈
Inductor Contents 2 Sets of Coil

## 编码解释
**Code interpretation**

| PSCLAQ | 0905 | - | XXX | Y |
|---|---|---|---|---|
| 类别码 | 尺寸系列 | | 电感值 | 精度 |
| Category code | Dimension | | Inductance | Tolerance |

© 规格参数基于环境温度25℃取得
All test Data is referenced to 25℃ ambient

© 电感工作环境温度： -40℃ ~ 105℃
Operating temperature range -40 °C to +105 °C

© 加载额定电流会使电感温度上升大约 40℃ (电感初始温度+上升温度=电感最终温度)
Typical Heat Rating DC Current would cause an approximately △T of 40℃

© 务必考虑最终的产品设计，元器件布局，线路板走线，以及使用环境过程中，电感最终温度不得超过105℃
The operating temperature of inductance do not exceed 105℃

© 使用电感时，请查阅最后一页注意事项
The announcements is on last page

© **规格书中给出的参数精度为“+∞”，则意味着该规格不规定该参数的上限；参数精度为“Ref” “Typ”时，则该值仅做参考，无明确的正负公差**
∞=unlimited，**Ref or Typ**=It is merely a reference value and does not have positive or negative tolerance.

# 电气特性
# ELECTRICAL CHARACTERISTICS

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|---|---|---|---|
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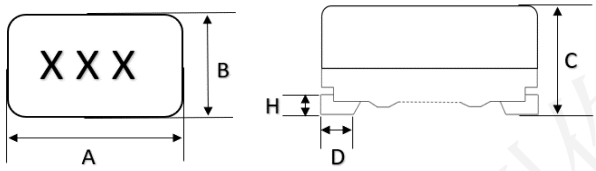
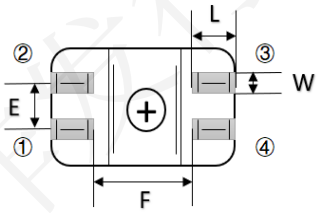
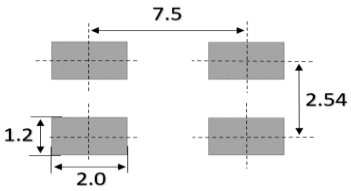
## 封装尺寸 Dimension (mm)




## 推荐的焊盘尺寸 Recommaned Land Pattern




| 系列 Series | 封装尺寸 Dimension | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | H | E | F | L | W |
| 0905 | 9.2±0.3 | 6.0±0.3 | 5.0±0.3 | 1.4 Max | 0.8±0.2 | 2.54 Ref | 5.7 Ref | 1.8 Ref | 1.0 Ref |

## 编码解释
Code interpretation

| PSCLAQ | 0905 | - | 102 | Y |
|---|---|---|---|---|
| 类别码 | 尺寸系列 | | 阻抗值 | 精度 |
| Category code | Dimension | | Impedance | Tolerance |

## 电气参数
Electrical Characteristics

| 产品编码 P/N | @ 25 ℃ Ambient Temperture | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 感值值 (L) | 精度 Tolerance | 测试频率 Test Frequency | DCR | 额定电流 Rated Current | 滤波范围 Frequency Range | 额定电压 Rated Voltage | 峰值阻抗 Peak Impedance |
| | N1=N2 | | | Ω | mA | | | Ω@MHZ |
| | μH | ± | KHZ | Max | △T≈40℃ | MHZ(Ref.) | Vdc | Ref |
| PSCLAQ0905-100N | 10 | 30% | 1KHZ/ 0.1V | 0.08 | 1600 | 10~500 | 80 | 1.2KΩ@90MHz |
| PSCLAQ0905-250N | 25 | 30% | | 0.16 | 1000 | 5~300 | 80 | 1.8KΩ@60MHz |
| PSCLAQ0905-400N | 40 | 30% | | 0.25 | 900 | 5~300 | 80 | 2.9KΩ@40MHz |
| PSCLAQ0905-500N | 50 | 30% | | 0.32 | 800 | 5~100 | 80 | 3.3KΩ@20MHz |
| PSCLAQ0905-251Y | 250 | 50% | 100KHZ /5mV | 0.13 | 1200 | 0.5~100 | 80 | 1.5KΩ@20MHz |
| PSCLAQ0905-471Y | 470 | 50% | | 0.14 | 1100 | 0.5~100 | 80 | 2.5KΩ@20MHz |
| PSCLAQ0905-501Y | 500 | 50% | | 0.15 | 1000 | 0.5~100 | 80 | 2.6KΩ@17MHz |
| PSCLAQ0905-102Y | 1000 | 50% | | 0.31 | 800 | 0.05~100 | 80 | 2.7KΩ@10MHz |
| PSCLAQ0905-202Y | 2000 | 50% | | 0.42 | 600 | 0.05~50 | 80 | 4.2KΩ@1MHz |
| PSCLAQ0905-472Y | 4700 | 50% | | 0.9 | 400 | 0.05~30 | 80 | 17KΩ@1MHz |
| PSCLAQ0905-652Y | 6500 | 50% | | 1.05 | 300 | 0.01~30 | 80 | 17.5KΩ@1MHz |

# 电气特性
# ELECTRICAL CHARACTERISTICS

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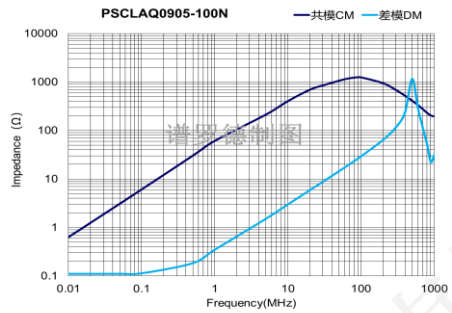
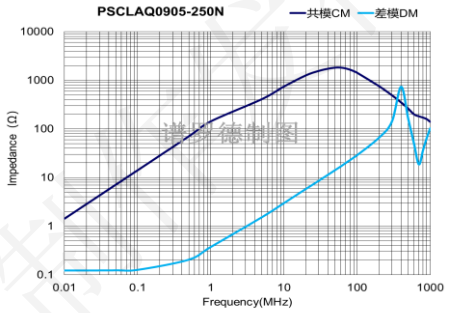
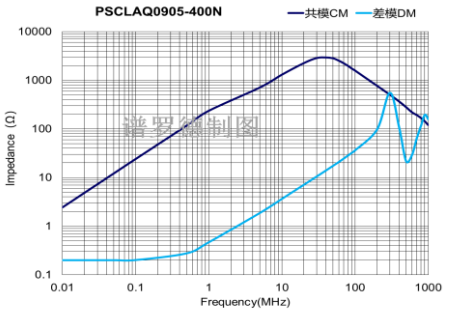
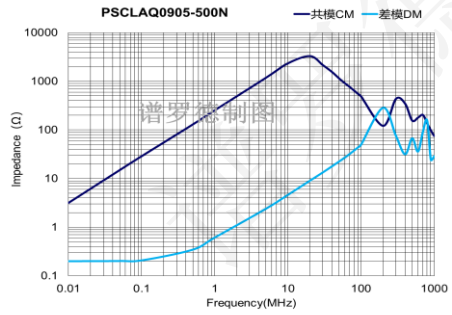
|---|---|---|---|
| 产品系列 Series | 共模线性滤波器 | 测试频率 TEST FREQUENCY | 参考规格书内定义 |

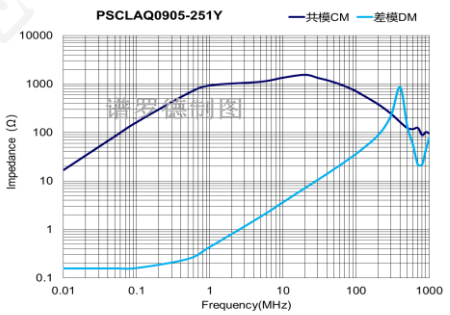
## 特性曲线
## Performance Curves

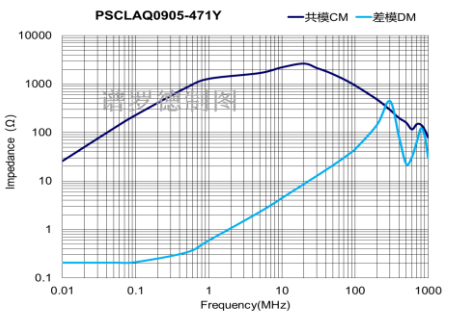


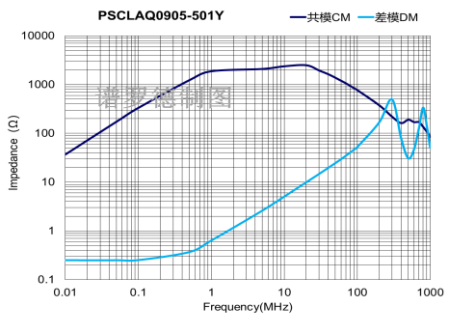



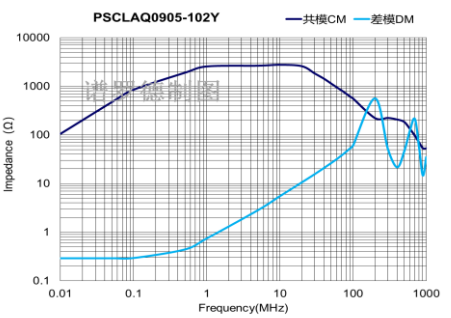



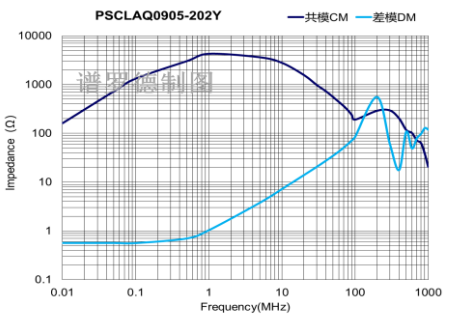



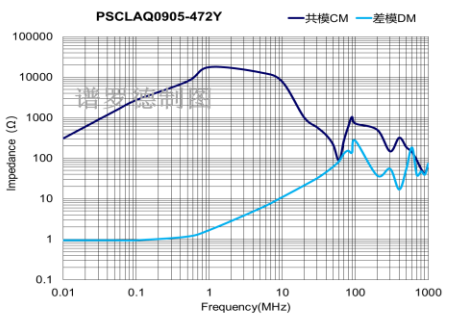



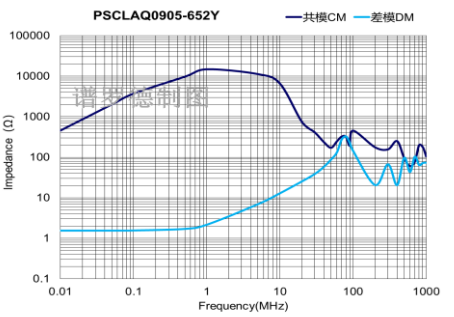



# 组件与焊接
Parts and Soldering Profile

| | | | |
|---|---|---|---|
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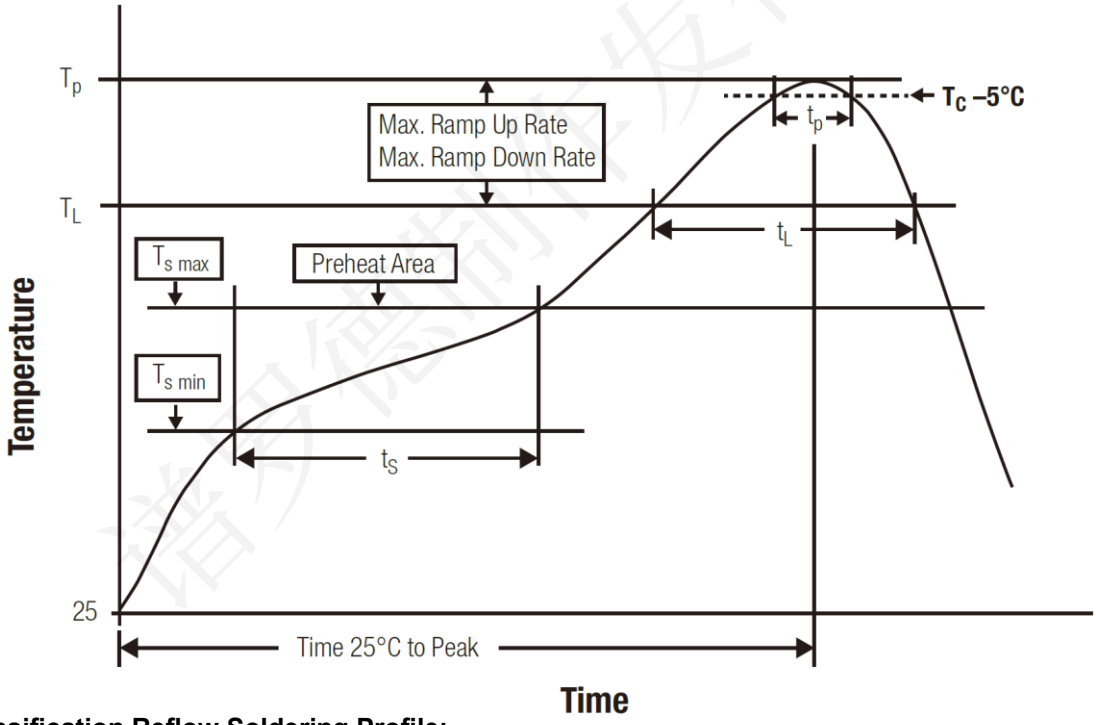
## 焊接温度（推荐）
**Recommended Classification Wave Soldering Profile**




**Classification Reflow Soldering Profile:**

| Profile Feature | Item | Value |
|---|---|---|
| Preheat Temperature Min | **Ts min** | 150 °C |
| Preheat Temperature Max | **Ts max** | 200 °C |
| Preheat Time ts from Ts min to Ts max | **ts** | 60 - 120 seconds |
| Ramp-up Rate (TL to TP) | | 3 °C/ second max. |
| Liquidous Temperature | **TL** | 217 °C |
| Time tL maintained above TL | **tL** | 60 - 150 seconds |
| Peak package body temperature | **Tp** | Tp <=Tc, see Table below |
| Time within 5°C of actual peaktemperature | **t p** | 20 - 30 seconds |
| Ramp-down Rate (TP to TL) | | 6 °C/ second max. |
| Time 25°C to peak temperature | | 8 minutes max. |

**Package Classification Reflow Temperature (Tc):**

| Properties | Volume mm³ <350 | Volume mm³ 350-2000 | Volume mm³ >2000 |
|---|---|---|---|
| PB-Free Assembly \| Package Thickness < 1.6 mm | 260°C | 260°C | 260°C |
| PB-Free Assembly \| Package Thickness 1.6 mm - 2.5 mm | 260°C | 250°C | 245°C |
| PB-Free Assembly \| Package Thickness > 2.5 mm | 250°C | 245°C | 245°C |

* 参考标准：IPC/ JEDEC J-STD-020E　refer standard to: IPC/ JEDEC J-STD-020E

# 信赖性实验
RELIABILITY TEST

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|---|---|---|---|
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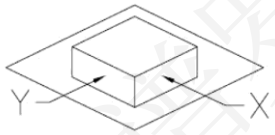
**可靠性实验**

**RELIABILITY TESTING**

| 项目/Item | 方法/Method |
|---|---|
| Operating Temperature | - 40 to +105 °C ( Contain Heating coil ) |
| Appearance Inspection | No external defects by visual inspection |
| Terminal Strength   | After soldering , between copper plaet and terminals of coils , push in two directions of X , Y with standing 10N(1.02kg) for10+/-2 sec.<br>Terminal should not peel off. ( Refer to figure at right ) |
| Heat endurance of reflow soldering | Preheating：150±10°C for 60 seconds<br>Soldering：245±5°C dwell for 5+/- 0.5 second |
| Insulating resistance | Over 10 MΩ at 50V D.C . between wire and core |
| Dielectric Strength | Apply at 0.5KV 1mA for 3S between wire and core |
| Temperature characteristics | Inductance coefficient ( 0~2,000 ) × 10 / °C( - 40~ + 105 °C ) |
| Humidity characteristics | Inductance deviation within ± 10% , after 96 hours in 90~95% relative humidity at 40 ± 2 °C and 1 hours drying under normal condition |

A test is made under the above mentioned condition , and it is kept for 2 hours in the normal

# 包装方式
PACKING FOR SMD

| | | | |
|---|---|---|---|
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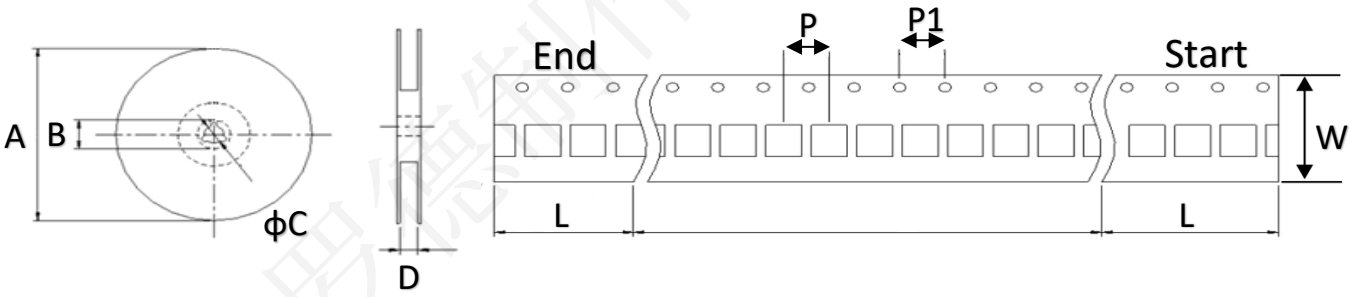
**載帶卷盤尺寸：(mm)**

**Packing Dimension**

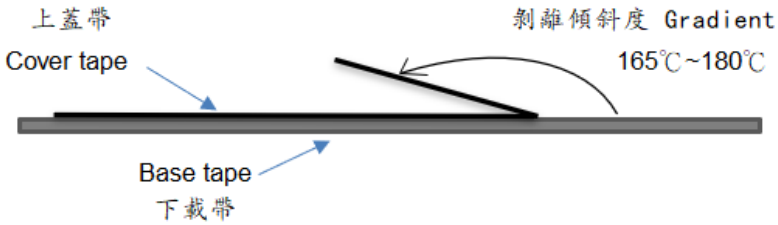
| MPQ | A | B | C | D | P | P1 | W | L |
|---|---|---|---|---|---|---|---|---|
| 1000pcs/卷盤 | 330 Typ | 21 Ref | 13 Ref | 18 Ref | 12 Ref | 4 Ref | 12 Ref | 前后预留约30空格 |




## 载带剥离力：
Typical Pulling Force

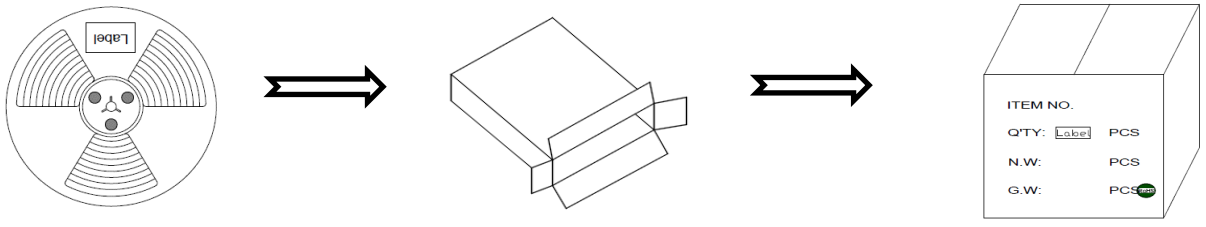
对上盖带施加力：20g~120g内即可与下载带剥离

Tape Peeling off force：20g~120g




## 装箱数量：
Package Quantity

| 最小包装 | 内盒 | 外箱 |
|---|---|---|
| MPQ | Middle box | Outer box |
| 1000pcs/Reel | 20000pcs/ Middle box | 60000pcs/ Outer box |




© 实际出货过程，依据客户需求状况的不同，包装数量会有变化，最终的包装数量请参照实际出货包装

In the actual delivery process, the package quantity will change according to the different customer demands. Please refer to the actual shipment quantity for the final package quantity

# 注意事项

使用本产品时，请注意以下事项

© 产品保存期限为12个月，保存条件：温度5~40℃，湿度10~75%RH以内，超过保存期限可能会使元器件电极发生氧化，存储标准可参照：IEC_61760-2-2021

This components storage life is 12 months, Storage Temperature: TEMP.5~40℃; RH10%~75%. Please use this components within the warranty period. refer standard to: IEC_61760-2-2021

© 请勿在极端环境下使用和保存（高盐，强酸，强碱，强辐射等）。

Do not use this component in special environments, such as high salt content, strong acid, strong alkali, strong corrosion and other special environments.

© 元器件焊接前,请进行预热,预热与焊接温度之间温差建议控制在150℃以内;焊接标准参考：EN61760-1:2006

Please preheat the product before welding; it is recommended to control the preheating temperature and welding temperature within 150℃. refer standard to: EN61760-1:2006

© 元器件焊接后需重新拆卸焊接修正时，请遵循规格书规定的条件范围；过高的加热温度以及反复的拆卸可能会导致元器件失效。

When repairing this component, the temperature used for disassembly should not exceed the datasheet limit and do not disassemble it frequently to prevent damage to the component.

© 请勿用清洗剂、丙酮等腐蚀性液体接触该元器件，这可能会侵蚀元器件本体以至于失效。

Do not use acetone or other corrosive liquids to contact this component or it will cause it to fail.

© 元器件焊接到线路板后，请注意不可因线路板整体变形或局部变形而施加给电感剩余应力，这可能会导致元器件脱落、破损失效。

When this component is soldered to the circuit board, you need to pay attention to the stress applied to it by the PCB, which may cause it to fall off or damaged fail.

© 元器件通电后温度会随电流的增大而上升，设计时请务必考虑留有余量。

Self heating (Rated Current or Irms) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.

© 过高的静电会损坏该元器件，请注意静电防护。

Too high static electricity will cause permanent damage to the product, please pay attention to electrostatic protection.

© 本元器件作为磁性产品，设计时请务必考虑周边元器件与本产品可能产生的耦合效应影响。

This magnetic component needs to be considered for coupling effects in the application.

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