

■ LGA 型色码电感器

Wire Wound Chip Ceramic Inductors

◆特征 Feature

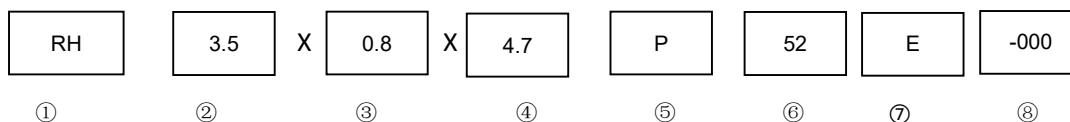
- * 大电流，低直流阻抗，高频阻抗高。;
High current, low DC impedance, high high-frequency impedance.
- * 工业生产标准尺寸及多种脚型产品。
Standard size, various lead configuration.



◆应用 Application

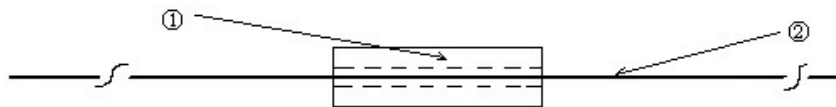
- *一般用途品。
General purpose goods

◆型号表示法 Part Number



项目 Item	代码 Code	描 述 Description
①	RH	穿芯磁珠 RH 型 Bead core inductor RH type
②	3.5	外径尺寸 Outer diameter ΦA
③	0.8	内径尺寸 Inside diameter ΦC
④	4.7	磁芯体长 Core length D
⑤	P/T	编带 Tape: P-盒带包装 Ammo T-卷盒包装 Reel
⑥	26/52	引脚形式 Lead Configuration: 26-编带包装内距 Tape width : 26mm 52-编带包装内距 Tape width : 52mm
⑦	E	无铅 Lead Free
⑧	-000	标准代码，空缺-标准品，标示-定制品， Standard code, Vacant-Standard product, Indicate-custom product

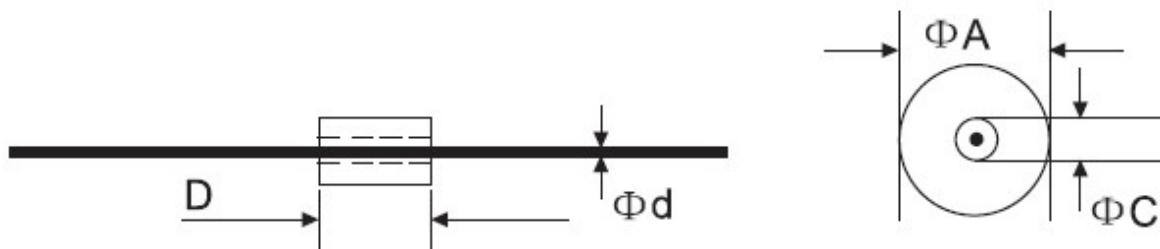
◆产品结构&材料清单 Structure &Material list



NO	部位 Component	材料 Material
①	磁芯 Core	镍锌铁氧体 Ni-Zn Ferrite
②	引脚 Leading	镀锡铜包钢线 CP wire

◆规格尺寸 Dimension

单位 Unit: mm



型号规格 Type	尺寸 Dimensions(mm)			
	ΦA	ΦC	D	Φd
RH3.5X0.8 X 4.7	3.5±0.2	0.8±0.1	4.7±0.3	0.6±0.05
RH3.5 X 0.8 X 6.0	3.5±0.2	0.8±0.1	6.0±0.3	0.6±0.05
RH3.5 X 0.8 X 9.0	3.5±0.2	0.8±0.1	9.0±0.3	0.6±0.05
RH3.5 X 0.8 X 12	3.5±0.2	1.0±0.1	12.0±0.5	0.6±0.05

◆工作温度范围 Operating Temperature Range

*工作温度范围(包括自身发热):(-25~+85)°C。

*Operating Temperature Range(Including self-heating):(-25~+85)°C.

◆电性能参数 Electrical Characteristics

阻抗: IM7581 电桥或等同测量仪器, 测试电压 1V。Impedance: IM7581 or equivalent measuring instrument, test voltage 1V.

型号规格 Type	阻抗 Impedance (Ω) (@25.2MHz)	阻抗 Impedance (Ω) (@100MHz)
RH3.5X0.8 X 4.7	30(Min)	50(Min)
RH3.5 X 0.8 X 6.0	40(Min)	70(Min)
RH3.5 X 0.8 X 9.0	60(Min)	100(Min)
RH3.5 X 1.0 X 12	80(Min)	120(Min)

*可根据客户需求做定制产品。Note: Customized products can be made according to customer needs.

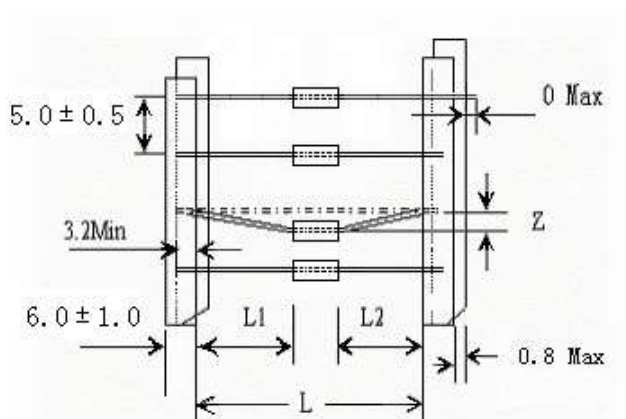
◆可靠性测试方法 Reliability Test Method

序号 No.	项目 Item	要求 Requirements	试验条件及方法 Test methods and remarks
1	绝缘电阻 Insulation resistance	IR≥100MΩ	在磁芯和引线间施加直流电压 500V, 持续 60 秒。 Apply 500VDC between Core g and terminal for 60sec
2	可焊性 Solder ability	引线的表面圆周覆盖率不小于 95% Leads shall be at least 95% areas covered with a new solder coating.	在 245±5°C 熔融的焊锡中浸置 3.0s±0.5s Dip pads in flux and dip in solder pot at 235±5°C for 3.0 s±0.5 seconds.
3	耐焊接热 Resistance to soldering heat	1.外观无明显损伤 2.阻抗变化率: -20%≤Δz/L≤20% 1.No visible mechanical damage. 2. Inductance change: -20%≤Δz/L≤20%%	焊锡温度: 260±5°C 浸锡时间: 10±1s 恢复时间: 1~2 小时 Tin review: 260±5°C Duration: 10±1s Recovery: 1~2hours
4	耐低温 Low Temperature Resistance	1.外观无明显损伤 2.阻抗变化率: -20%≤Δz/L≤20% 1.No visible mechanical damage. 2. Inductance change: -20%≤Δz/L≤20%%	元件置于温度-25°C±2°C的环境中存放 96h, 试验完成后, 取出元件置于常温、常湿环境中放置 24h ± 2 h。Place the components under-25 °C ± 2 °C conditions for 96h measure at 24h ± 2h after test conclusion.
5	耐高温 High Temperature Resistance	1.外观无明显损伤 2.阻抗变化率: -20%≤Δz/L≤20% 1.No visible mechanical damage. 2. Inductance change: -20%≤Δz/L≤20%%	元件置于温度 85°C±2°C的环境中存放 96 h, 试验完成后, 取出元件置于常温、常湿环境中放置 24h ± 2 h。Place the components under 85 °C ± 2 °C conditions for 96h, measure at 24h ± 2h after test conclusion.

6	恒定湿热 Static Humidity	1.外观无明显损伤 2.阻抗变化率: $-20\% \leq \Delta z/L \leq 20\%$ 1.No visible mechanical damage. 2. Inductance change: $-20\% \leq \Delta z/L \leq 20\%$	元件置于恒温、恒湿的试验箱中, 按以下条件试验: 温度: $60^{\circ}\text{C} \pm 2^{\circ}\text{C}$ 相对湿度: 90%~95% RH 试验时间: 500 h \pm 2 h 试验完成后, 取出元件置于常温、常湿环境中放置 24 h \pm 2 h。 Place the components in box with constant temp and humidity conditions: Temp: $60^{\circ}\text{C} \pm 2^{\circ}\text{C}$ Relative Humidity: 90%~95% RH Duration: 500 h \pm 2 h measure at 24 h \pm 2 h after test conclusion.
7	温度循环 Temperature Cycling	1.外观无明显损伤 2.阻抗变化率: $-20\% \leq \Delta z/L \leq 20\%$ 1.No visible mechanical damage. 2. Inductance change: $-20\% \leq \Delta z/L \leq 20\%$	-25°C 环境 30min \leftrightarrow $+85^{\circ}\text{C}$ 环境 30min, 循环 32 次, 转 换时间 $<5\text{min}$, 循环结束后常温下放置 24h \pm 2h。 Cycling 32 times from -25°C of 30min \leftrightarrow $+85^{\circ}\text{C}$ of 30min, transition time $<5\text{min}$, then place at room temperature for 24h \pm 2h.
8	高温负载 (工作寿命) Hi-Temp (Operation life)	1.外观无明显损伤 2.阻抗变化率: $-20\% \leq \Delta z/L \leq 20\%$ 1.No visible mechanical damage. 2. Inductance change: $-20\% \leq \Delta z/L \leq 20\%$	元件置于老化试验箱中, 按以下条件试验: 温度: $85^{\circ}\text{C} \pm 2^{\circ}\text{C}$ 施加额定的直流电流 试验时间: 1000 h 试验完成后, 取出元件置于常温、常湿环境中放置 24 h \pm 2 h。 Place the components in the aging box: Temp: $85^{\circ}\text{C} \pm 2^{\circ}\text{C}$ Apply current Duration: 1000 h measure at 24 h \pm 2 h after test conclusion.
9	振动 Vibration	1.外观无异常 2.电气性能符合要求 1. No visible damage 2. Electrical performance meets the requirements	振幅 1.5mm, 频率 10Hz ~55Hz~10Hz (1 min.), 每个方 向(X、Y、Z)保持 2 小时。 Frequency 10Hz to 55Hz to 10Hz in a period of 1 minute. for 2h in each of three(X、Y、Z) axes.
10	跌落 Drop	1.外观无异常 2.电气性能符合要求 1. visible damage 2. ectrical performance meets the requirements	条件: 1m 高度自由落下, 3 次水泥地。 Condition: Drop from 1mH to cement floor(3 times)

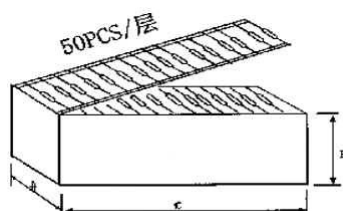
◆包装 Packaging

*编带尺寸 Taping dimensions (单位 UNIT: mm)

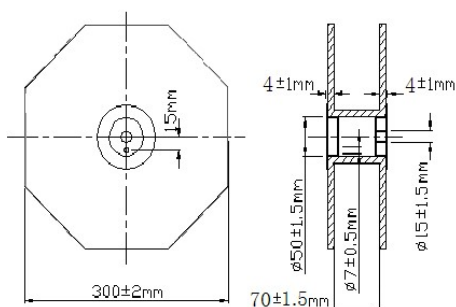


编带方式 Tape style	L	Z	L1-L2
编带内距:26 Tape width	26 ± 1.0	0.8 Max	1.0 Max
编带内距:52 Tape width	$52^{+2.0}_{-1.0}$	1.2 Max	

*盒带包装尺寸 Ammo packaging dimensions



*卷带包装尺寸 Tape & reel packaging dimensions



编带类型 Tape type	尺寸 Dimensions (±5mm)		
	A	B	C
P52	60	68	255
P26	45	115	257

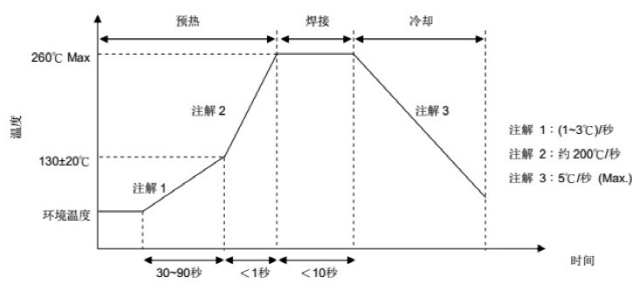
*包装数量 (单位: 粒) Packaging number (Unit: Pcs)

包装方式 Packaging style	盒带包装 Ammo		卷带包装 Tape & reel
	P52	P26	
包装数量 Quantity	1000	2000	5000

◆推荐焊接条件 Recommended Soldering Conditions

*本产品建议使用波峰焊接法。Applicable soldering process to the products is reflow soldering.

* 焊接曲线 Soldering Profile



* 烙铁焊接 Soldering Iron

使用烙铁进行返修时要求在 150°C 下预热至少 1 分钟，不能直接用焊头接触磁体，返修焊接条件如下：

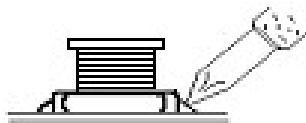
Reworking with Soldering Iron must preheating at 150°C for 1 minute is required, and do not directly touch the core with the tip of the soldering iron. The reworking soldering conditions are as follows:

烙铁头温度: Temperature of soldering iron tip: 350°C;

烙铁输出功率: Soldering iron power output: 30W max.

烙铁头直径: ≤1.0mm Diameter of soldering iron end: 1.0mm max.

焊接时间: Soldering time: within 3 sec.



◆贮存方法 Storage Methods

*存储期限 Storage Period

为保证端子电极的焊接特性和包装材料处于良好状态，请于本公司发货后 6 个月内使用本产品。同时，由于端子电极的焊接特性会随时间发生变化，如果贮存时间超过 6 个月，请首先确认其焊接特性后再安装使用。

To maintain the solderability of terminal electrodes and to keep the packing material in good condition, product should be used within 6 months from the time of delivery. And the solderability of products electrodes may decrease as time passes, so in case of storage over 6 months, solderability shall be checked before actual usage.

***存储条件 Storage Conditions**

存放货物的仓库应满足以下条件:The warehouse must meet with the following condition:

温度(Temperature): Inductors (product with taping):(+5~+35)°C;

相对湿度(Humidity):(30~70)%RH.

禁止将产品保管在腐蚀性物质中，如硫磺、氯气或酸，否则将引起端头氧化，导致降低焊接性。Don't keep products in corrosive gases such as sulfur, chlorine gas or acid, or it may cause oxidization of Electrodes resulting in poor solder ability.

* 为了避免受潮气、灰尘等物质的影响，产品应保管于货架上。

Products should be stored on the palette for the prevention of the influence from humidity, dust and so on.

* 产品保管在库房中，应避免热冲击、振动以及直接光照等等。

Products should be stored in the warehouse without heat shock, vibration, direct sunlight and so on.

*产品应密封包装。

Products should be stored under the airtight packaged condition.

◆使用注意事项 Precautions For Use

*本公司产品适用于 AV 设备、OA 设备、家电、信息服务等一般电子设备中。

Our products are designed and promoted for use in general electronic devices such as audio-video equipment, office automation equipment, home appliance and information service.

*当本公司的产品使用在一般电子设备以外的领域时，对于此所引发的设备失效我司将不承担任何法律责任。

In case of using the product for the purpose other than general electronics devices, we shall not be held liable for any dysfunctions in or damage to the equipment with which the product is used.

* 本承认书只保证我司产品作为一个单体时的质量情况，当我司产品被安装到贵司产品上时，请贵司对使用在贵司电路上的产品情况进行了有效评价和确认。

Our specification limits the quality of the component as a single unit. Please ensure the component is thoroughly evaluated in your application circuit.

*不要对产品施加过大的振动或机械冲击；

Do not apply excessive vibration or mechanical shock to products.

*为防止断线，请不要使用锋利的物体接触线圈，如镊子

Do not touch wire with sharp objects such as tweezers to prevent wire breakage.

在产品贴装时不要使用过大的压力，避免磁芯断裂。

Do not apply excessive stress to products mounted on boards to prevent core breakage

■修改履历 Revision History

注：上述所提供之内容为产品规格说明。在产品未变更时，风华保有修改此内容不另行通知之所有权利，任何产品变更将会以 PCN 通知客户。

Note: The above content is the specification of products. Fenghua reserves the right to modify this content without prior notice, and any product changes will be notified to customers via PCN.