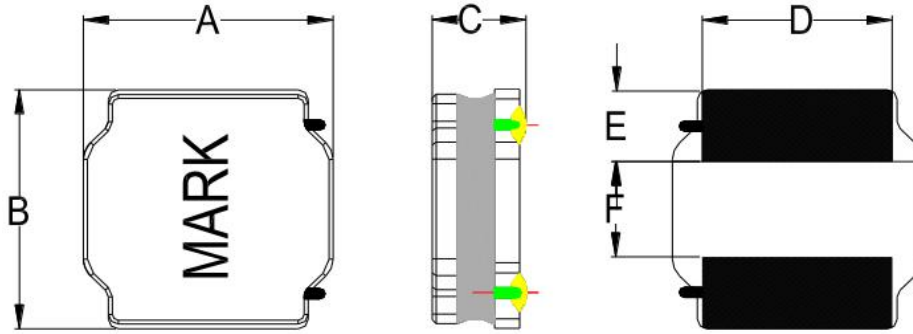


承认书 Specifications	型 名 Type	GCNR5020
	GLE 部品型号 GLE Part NO.	GCNR5020 系列
接受 Accepted by		客户部品型号 Customer's Part No.

外形寸法 Physical dimensions

单位 Unit: mm

RoHS Comp.



A	B	C	D	E	F
5.0±0.2	5.0±0.2	2R2↑:2.1 max 3R3↓:2.0 max	4.0±0.2	1.25±0.2	2.5±0.2

备注：黑色印字

NO.	构成部品 Components	材质 Materials	原产国 Country of origin
1	磁性材料 Magnetic powder	镍锌铁氧体磁粉 Nickel zinc ferrite magnetic powder	中国 China
2	铜线 Wire	改良聚胺脂涂布铜线 Polyurethane-system coated copper wire	德国 Germany
3	磁胶 Magnetic epoxy resin	镍锌铁氧体磁粉+环氧树脂 Nickel zinc ferrite magnetic powder+ epoxy	中国 China
4	电极 Welding surface	锡 Sn	中国 China

Issued	2018.11.26				
记号 Symbol	日期 Date	页 Page	变更内容 Contents of revision		确认 Check



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张立华	张顺钧	刘子善

GCNR5020 Type 一般规格 General Specifications (1/3)			
	项目 Item	规格 Specification	条件 Condition
1	电极强度 Terminal Strength	No electrode detachment should be found	电感的电极焊在基板上，在 X.Z 方向用 5.0N 的静荷重加压 10 ± 2 秒。 When the device is pushed in two directions of X and Z with the force of 5N for 10 ± 2 seconds after soldering between copper plate and the electrodes
2	回流焊耐热试验 Reflow test	Change from an initial value L : within $\pm 20\%$	峰值温度 Peak temp $240 \pm 5^\circ\text{C}$ $30 \pm 10\text{s}$ 试验板的厚度 0.8mm 以上，按上面条件通过两次热风炉。 The specimen shall be subjected to the reflow process under the above condition 2 times. Test board shall be 0.8mm thick. Base material shall be glass epoxy resin. 测定 Measurement 常温常湿中放置于 1 小时以上测试。 The specimen shall be stored at standard atmospheric conditions for 1 h in prior to the measurement.
3	耐振性 Vibration	Change from an initial value L : within $\pm 20\%$	振动频率 10~55~10Hz，振幅 1.5mm，振动 1 小时。 The specimen shall be subjected to a vibration of 1.5mm amplitude, sweep frequency 10~55~10Hz after vibration for 1 hours
4	跌落实验 Free fall test	Change from an initial value L : within $\pm 20\%$	试件安装在基板上，由 1 米高自由落体，连续 10 次。 The specimen must be fixed on test board. Then it shall be fallen freely from 1m height. 10 consecutive times.
5	高温高湿试验 High temperature and high humidity test	Change from an initial value L : within $\pm 20\%$	在温度 $40 \pm 2^\circ\text{C}$ ，湿度 90~95% 中放置 96 ± 4 小时后，常温常湿中放置 1 小时以上 2 小时以内测试。 The specimen shall be stored at a temperature of $40 \pm 2^\circ\text{C}$ with relative humidity of 90 ~ 95% for $96 \pm 4\text{h}$. Then it shall be stabilized under standard atmospheric conditions for 1 h before measurement. Measurement shall be made within 1h~ 2h.

GCNR5020 Type 一般规格 General Specifications (2/3)

	项目 Item	规格 Specification	条件 Condition
6	高温保存试验 High temperature preservation test	Change from an initial value L : within $\pm 20\%$	在温度 $125 \pm 2^\circ\text{C}$ 中放置 96 ± 1 小时后, 常温常湿中放置 1 小时以上 2 小时以内测试。 The specimen shall be stored at a temperature of $125 \pm 2^\circ\text{C}$ for $96 \pm 1\text{h}$. Then it shall be stabilized under standard atmospheric conditions for 1 h before measurement. Measurement shall be made within 1h~ 2h.
7	低温保存试验 Low temperature preservation test	Change from an initial value L : within $\pm 20\%$	在温度 $-40 \pm 3^\circ\text{C}$ 中放置 96 ± 1 小时后, 常温常湿中放置 1 小时以上 2 小时以内测试。 After stored at a temperature of $-40 \pm 3^\circ\text{C}$ for $96 \pm 1\text{h}$. The specimen should be measured, then it should be measured under normal temperature and humidity in 1h~ 2h hours.
8	可焊性试验 Solder ability test	95% 以上的面积要被覆盖。 New solder shall cover 95% minimum of the surface immersed.	试验品的电极深布松香后, 焊锡槽温度 $260 \pm 5^\circ\text{C}$, 时间: 3 ± 0.5 秒。 Terminals shall be immersed in flux at room temperature. Dip sample into solder bath containing molten solder at $260 \pm 5^\circ\text{C}$ for 3 ± 0.5 seconds.
9	冷热冲击试验 Cold and hot cycle test	Change from an initial value L : within $\pm 20\%$	以温度 $-40 \pm 3^\circ\text{C}$ 中放置 30 分钟, 在 $125^\circ\text{C} \pm 2^\circ\text{C}$ 放置 30 分钟, 中间转换时间不超过 1 分钟为一个循环。完成 20 个循环后, 常温常湿中放置 1 小时以上 2 小时以内测试。 The specimen shall be measured after to 20 continuous cycles of temperature change of $-40^\circ\text{C} \pm 3^\circ\text{C}$ for 30 min and $125^\circ\text{C} \pm 2^\circ\text{C}$ for 30 min with the transit period of 2min or less. Then it shall be stabilized under standard atmospheric conditions for 1 h before measurement. Measurement shall be made within 1h~ 2h.
10	保存温湿度范围 Storage temperature and humidity range	temperature range: $5^\circ\text{C} \sim 35^\circ\text{C}$ humidity range: $25\% \sim 80\%$	在包装的状态下。 In packing state.

标准状态 Standard atmospheric conditions

Unless otherwise specified, the standard range of atmospheric conditions in making measurements and test as follows;

Ambient temperature : 5°C to 35°C , Relative humidity: 45% to 85%, Air pressure: 86kPa to 106kPa

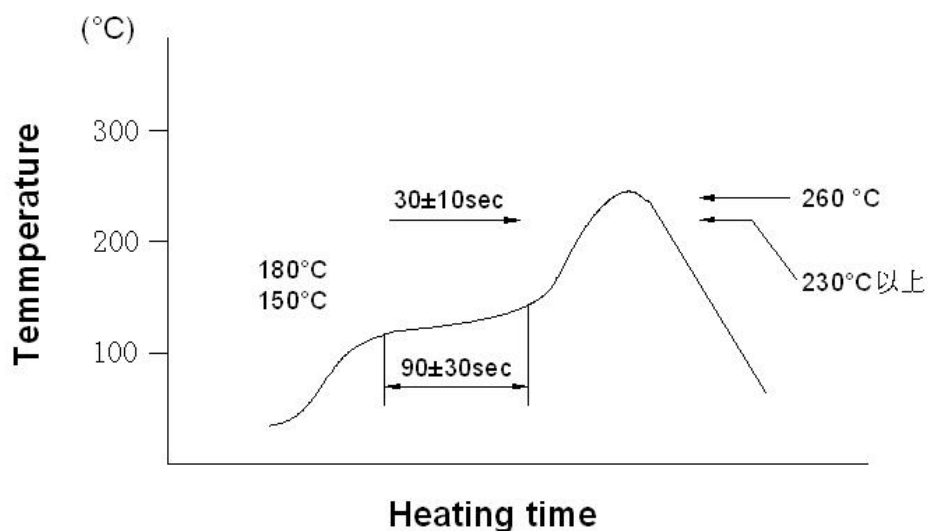
If more strict measurement is required, measurement shall be made within following limits;

Ambient temperature : $20 \pm 2^\circ\text{C}$, Relative humidity: $65 \pm 5\%$, Air pressure: 86kPa to 106kPa

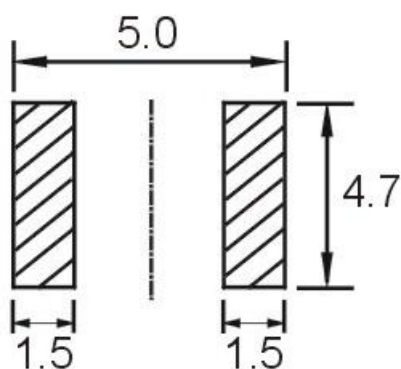
GCMR5020 Type 一般规格 General Specifications (3/3)

条件 Reflow soldering condition

- 回数: 2回
- Reflow times: 2times max
- We recommend infrared ray as heat source of reflow bath.
- However halogen lamp shall be used, side heat will be beyond range of resistance heat, so we can't recommend it.



推荐焊盘寸法 Recommended PCB pattern



单位 Unit: mm

GCNR5020 个别规格 Part Specifications

客户部品型号 Customer's Part No.	GLE 部品型号 GLE Part NO.	中心 InductanceLo (uH)	测定频率 Test Frequency (Hz/v)	直流阻抗 DC Resistance (mΩ)±30%	饱和电流 Isat (A) Max. △L/L≦-35%	温升电流 Irms (A) Max. △T≦40℃
	GCNR5020-1R0MC	1.0	100KHz/1v	20	4.33	4.30
	GCNR5020-1R5MC	1.5	100KHz/1v	26	4.10	3.20
	GCNR5020-2R2MC	2.2	100KHz/1v	38	3.20	2.90
	GCNR5020-3R3MC	3.3	100KHz/1v	46	2.55	2.50
	GCNR5020-4R7MC	4.7	100KHz/1v	65	2.40	2.20
	GCNR5020-6R8MC	6.8	100KHz/1v	92	2.10	1.80
	GCNR5020-8R2MC	8.2	100KHz/1v	100	1.90	1.68
	GCNR5020-100MC	10	100KHz/1v	125	1.50	1.45
	GCNR5020-150MC	15	100KHz/1v	180	1.44	1.25
	GCNR5020-220MC	22	100KHz/1v	250	1.18	1.10
	GCNR5020-330MC	33	100KHz/1v	370	0.97	0.93
	GCNR5020-470MC	47	100KHz/1v	560	0.81	0.77

Note:

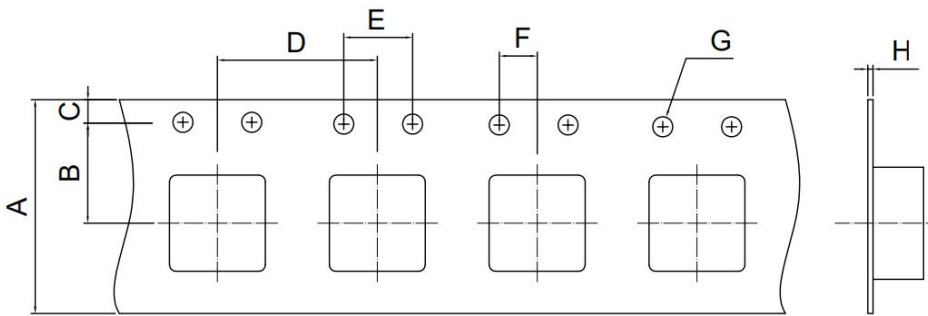
许容公差 Inductance Tolerance : (特性以实物为准)

J = ±5% K = ±10% L = ±15% M = ± 20% N = ±30%

GCNR5020 捆包规格 Packing Specifications

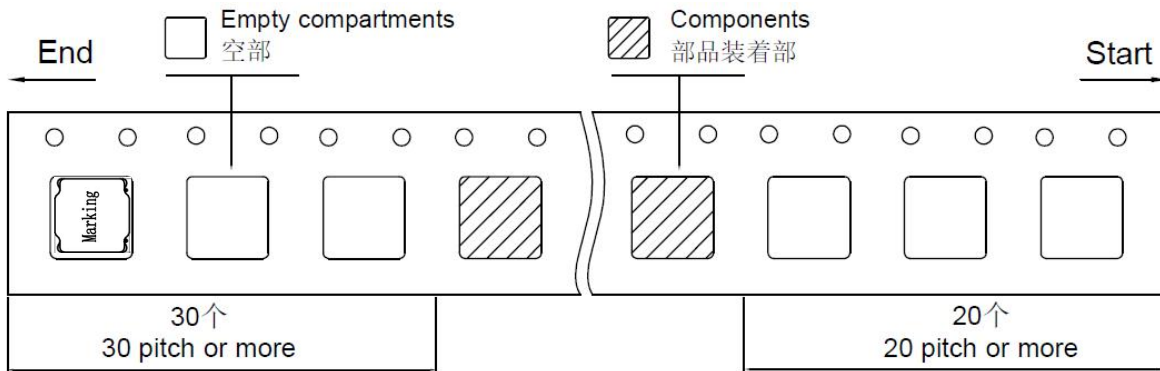
Unit : mm

1. 寸法 Tape Dimensions



A	12.0
B	5.50
C	1.75
D	8.00
E	4.00
F	2.00
G	Ø1.50
H	0.35

2. 方法 Taping method 冷封 (The direction shall be seen from the top cover tape side.)



3. 卷盘寸法图 Reel dimensions



A	330.0
B	Ø13.0
C	21.0
D	16.4
E	100
F	12.4

4. 捆包箱 Packing box



- 捆包箱材质 Packing case material
纸 Kraft paper
- 收纳数 Real quantity per packing box
4reel / 1box
- 数量/ 卷 Quantity : 2500PCS / reel
- 表示 Marking
客户部品型号, 数量, Lot No.
Customer's part number, Quantity, Lot number.

禁用物质 Prohibited Substances**1. RoHS 规制的六种物质**

- | | |
|------------|-------------------------------------|
| 1) 铅及其化合物 | Lead and its compounds |
| 2) 水银及其化合物 | Mercury and its inorganic compounds |
| 3) 镉及其化合物 | Cadmium and its compounds |
| 4) 六价铬化合物 | Hexavalent chromium compounds |
| 5) 多溴联苯 | PBB |
| 6) 多溴二苯醚 | PBDE |

2. 破坏臭氧层的化学物质使用限制**PROHIBITION TO USE OZONE DEPLETING SUBSTANCES (ODS)**

- | 限制性物质 | Prohibited substances |
|----------------|-------------------------------------|
| 1) 氟氯化碳 | CFCS |
| 2) 氟哌丁苯 | Halon |
| 3) 四氯化碳 | Carbon tetrachloride |
| 4) 三氯乙烯 (三氯乙烷) | Trichloroethane (Methy1 chloroform) |

我公司保证我司的产品和生产过程符合“RoHS 和 HF 规则”，所有产品中使用的材料均是化学物质生产规则中登记的材料。

We confirm that our products and our production process accord with "rule of RoHS&HF". All materials used in this product are registered material under Regulation of Manufacture of Chemical Substances.