

承 认 书
SPECIFICATION FOR APPROVAL

客 户 Customer:

产品名称 Project:

功率电感

规格型号 Part No:

NR4020-XXXM

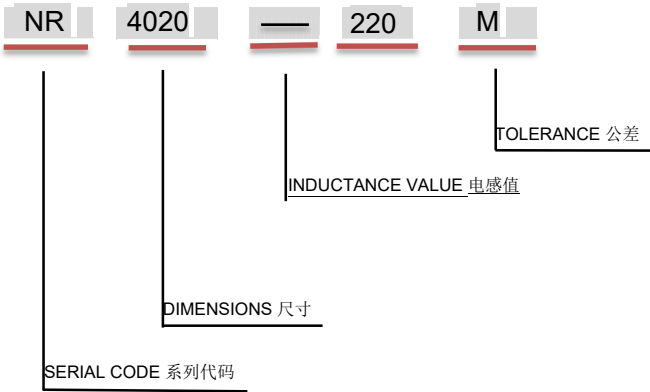
贵公司承认印 Approval signatures

料 号/Part No.	签 章/Signatures

日期 Date:

拟制/Drawn	王宗华	
审核/Check	陈森森	
批准/Approved	张春华	

● 编码原则Part Numbering .

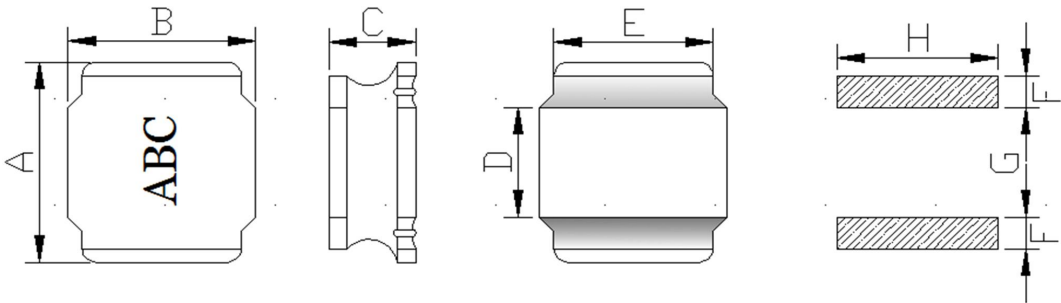


Code 代码	Tolerance 公差
J	±5%
K	±10%
L	±15%
M	±20%
P	±25%
N	±30%

- 电感值Inductance Value
(1R0:1.0uH; 100: 10uH; 101:100uH)

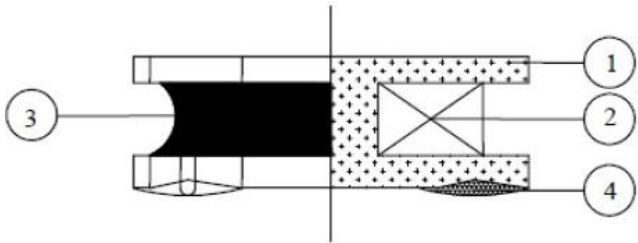
● 产品尺寸及推荐焊盘尺寸Dimensions and Recommend PC Board Pattern (unit: mm).

单位Unit: mm



A	4.00±0.2
B	4.00±0.2
C	2.0 Max
D	1.7±0.3
E	3.2 Ref
F	1.3 Ref
G	1.6 Ref
H	3.7 Ref

● 材料清单Material List



NO.	PARTS	MATERIAL	UL FILE NO.	TEMP. CLASS
1	DRUM CORE	Ni-Zn CORE OR EQUIVALENT	NA	NA
2	WIRE	POLYURETHANE ENAMELLED COPPER WIRE OR EQUIVALENT	E258243	180℃
3	ADHESIVE	EPOXY RESIN OR EQUIVALENT	NA	NA
4	SOLDER	Sn99.3-Cu0.7 OR EQUIVALENT	NA	NA

*NA:NOT APPLICABLE.

● 储存条件/注意的事项Storage conditions/Matters need attention

(1). 贮存温度、湿度条件:

Storage temperature and humidity conditions :

a .产品包装与载体:温度- 10℃~ + 40℃,相对湿度低于60%

Product packing with Carrier tape: -10℃~+40℃ and less than 60% RH

b.单独的产品:温度-20℃~ + 60℃,相对湿度低于60%

Product alone: -20℃~+60℃ and less than 60% RH

(2). 产品在6个月内使用(注意:产品一经拆开包装,须尽快使用)

Products should be used within 6 months.(Note that the product should be used as soon as possible once it is folded)

(3). 包装材料应保存在空气中不存在氯或硫的地方

The packaging material should be kept where no chlorine or sulfur exists in the air

(4). 不要用手指触摸电极(焊接端子),因为这可能导致焊接能力的下降

Do not touch the electrodes (soldering terminals) with fingers as this may lead to deterioration of solder ability.

(5). 个别零件强烈建议使用镊子或真空取料机散装搬运应确保尽量减少磨损和机械冲击

The use of tweezers or vacuum pick-ups is strongly recommended for individual components.Bulk handling should ensure that abrasion and mechanical shock are minimized.

5、电性能参数表 Electrical Characteristics List

规格型号 Part NO.	电感量 Tolerance(μH)	测试频率 Test Freq. (kHz/v)	直流电阻 DC Max (Ω)	饱和电流 Isat (A)	温升电流 Irms (A)
NR4020-1R0N	1.0	100/0.25	0.038	4.78	2.15
NR4020-1R5N	1.5	100/0.25	0.046	4.45	1.98
NR4020-2R2N	2.2	100/0.25	0.052	3.40	1.85
NR4020-3R3M	3.3	100/0.25	0.091	3.20	1.40
NR4020-4R7M	4.7	100/0.25	0.098	2.35	1.34
NR4020-5R6M	5.6	100/0.25	0.117	2.20	1.22
NR4020-6R8M	6.8	100/0.25	0.163	2.20	1.04
NR4020-100M	10	100/0.25	0.215	1.60	0.90
NR4020-120M	12	100/0.25	0.228	1.50	0.88
NR4020-150M	15	100/0.25	0.299	1.35	0.77
NR4020-220M	22	100/0.25	0.455	1.05	0.62
NR4020-330M	33	100/0.25	0.715	0.85	0.49
NR4020-470M	47	100/0.25	0.923	0.74	0.44
NR4020-680M	68	100/0.25	1.380	0.61	0.36
NR4020-820M	82	100/0.25	1.520	0.50	0.34
NR4020-101M	100	100/0.25	2.020	0.48	0.31
NR4020-221M	220	100/0.25	5.34	0.30	0.13

※公差Tolerance: N:±30%、M:±20%、K:±10%.

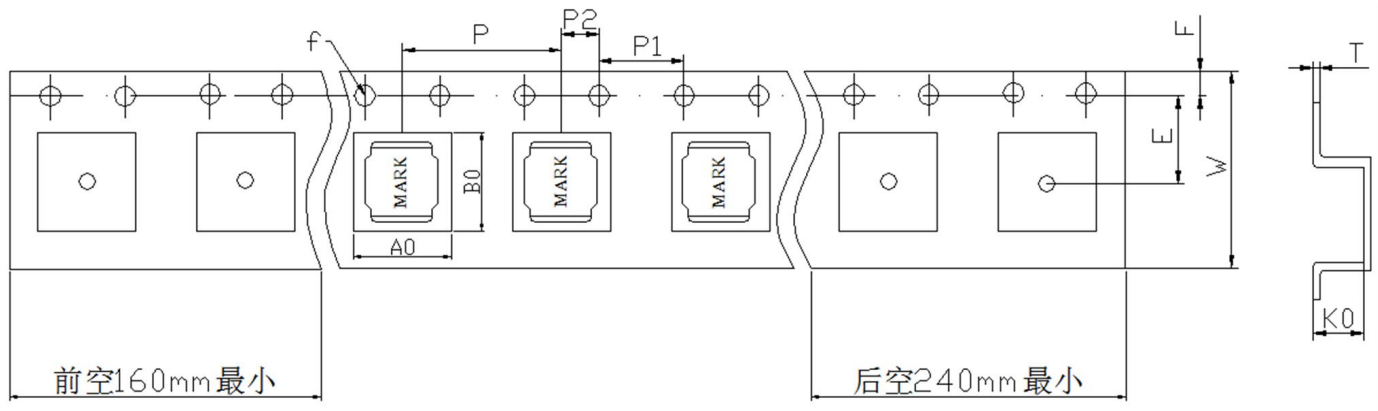
※工作温度Operating temperature rang: -40 ℃ to +125℃（Including Self-heating）

※储存温度Storage temperature rang: -40 ℃ to +125℃

额定电流：指使电感量比初始值下降30%或电感器表面温度上升 40℃的电流值（参考周围环境温度 25℃）。
The rated DC current is that which cause at 30% inductance reduction from the initial value or inductor surface temperature to rise by 40℃, whichever is smaller (Reference ambient temperature 25℃)。

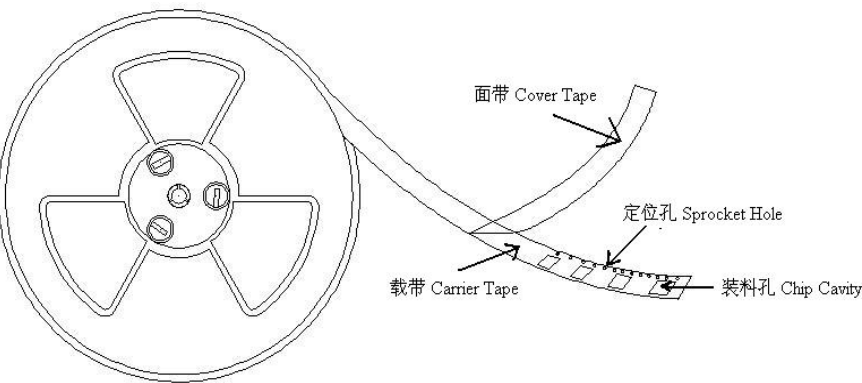
● 包装 Packaging Information

1) 载带包装示意图 Tape packing diagram



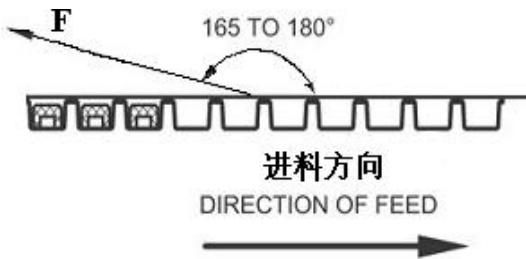
ITEM	W	A0	B0	K0	P	E	F	D0	P0	P2	T
DIM	12.00	4.30	4.30	2.20	8.00	5.50	1.75	1.50	4.00	2.00	0.30
TOLE	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1	±0.1	±0.1	±0.05

2) 卷盘包装示意图 Tape packing diagram



3) 剥离强度要求Peeling required

- ①F 力大小：20~100g;
- ②面带剥离角度：165°~180°。

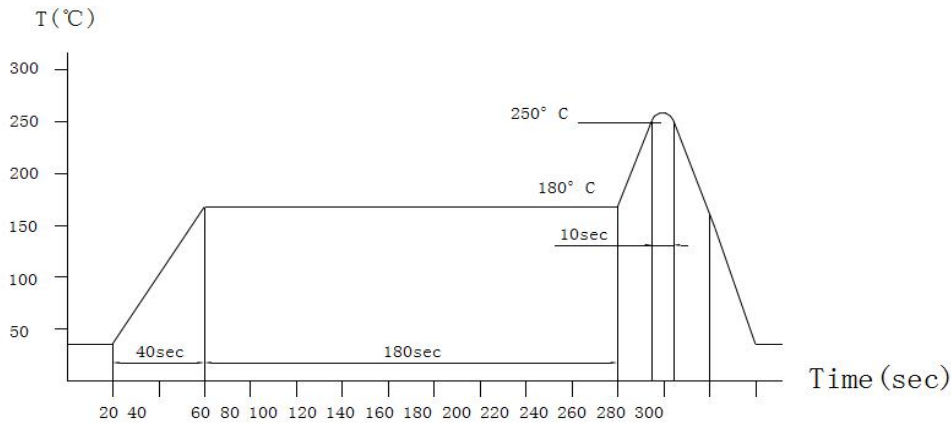


4) 包装数量 Packing quantity

项目	数量 (PCS)	尺寸规格 (mm)
盘	3000	13"
内盒	12000	340mm*340mm*65mm
外箱	24000	360mm*360mm*160mm

● 焊接和安装 Soldering and Mounting

(1). 推荐回流焊条件 (无铅) Recommended Reflow Conditions (Lead-free)

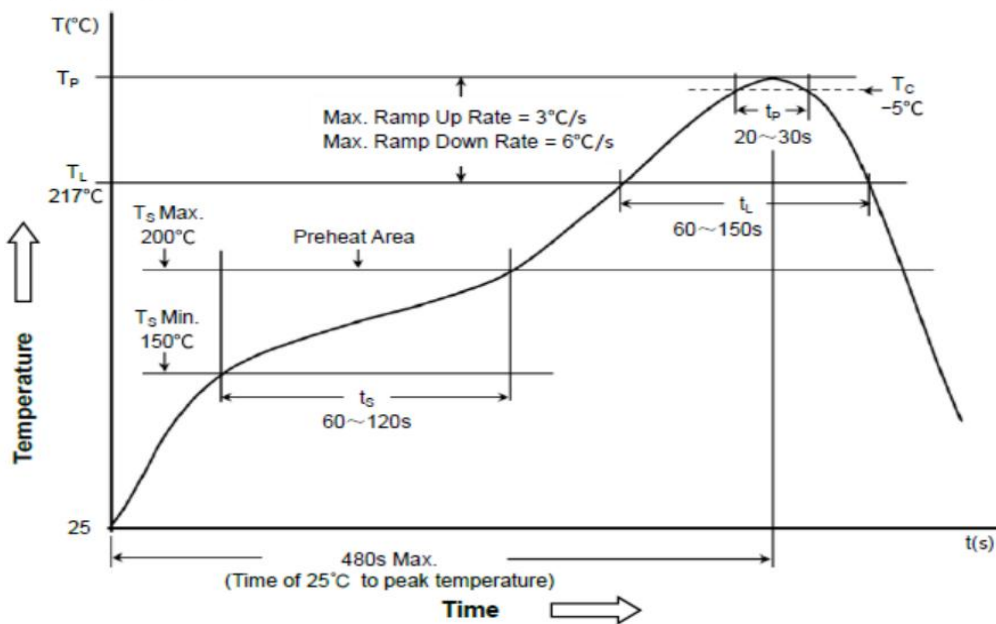


上面推荐的回流焊试验条件是根据本公司的回流焊设备

The above recommended reflow test conditions are based on the company's reflow welding equipment

(2). 回流焊耐热性 Reflow Soldering Heat Endurance

Reflow profile for SMT components
SMT 回流焊温度曲线



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

- 在该条件下进行回流焊，常温常湿条件下放置2个小时后，无机械，电气特性缺陷发生
Reflow soldering is carried out under this condition and placed under normal temperature and humidity conditions
- 在常温常湿条件下，间隔1个小时可进行两次回流焊
Twice reflow test is acceptable with the test interval remaining 1 hour under the normal conditions.
- 回流焊曲线图会因设备的不同有所差异
The reflow test profile may vary with the testing instruments.