

Customer:

Specification No.:1912001

客户: \_\_\_\_\_

规格书号: 1912001

# Product Specification 产品规格书

Issued Date:Dec. 10, 19

发布日期: 2019-12-10

Part Description: Heating PTC thermistor  
产品名称: 加热用 PTC 热敏电阻器

Customer Part No:  
客户料号:

Part No.: MZ4P7S0820 18NV14  
公司型号: MZ4P7S082018NV14

<p>FOR CUSTOMER APPROVAL 客户确认栏</p>
--

工厂地址:  
工厂名称:  
联系电话:

制

Recognized: \_\_\_\_\_

核

Authorized: \_\_\_\_\_

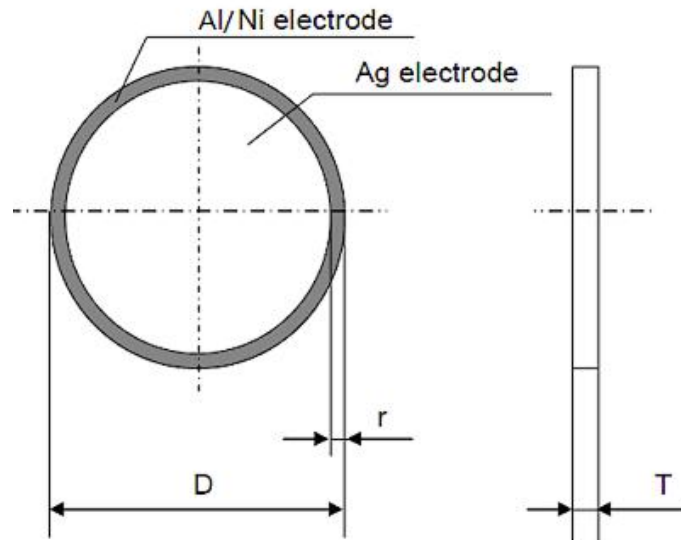
批准

<p>本规格书共 7 页，正文 5 页！ This specification of 7 pages, text 5 page!</p>
--

Part No: MZ4P7S0820-18NV14	<b>PTC THERMISTOR</b> 18Ω±30%	Rev: 0/A (Dec. 10, 19) Page 1 of 5
-------------------------------	----------------------------------	---------------------------------------

## 1. APPEARANCE 外观

### 1-1. Dimensions 尺寸



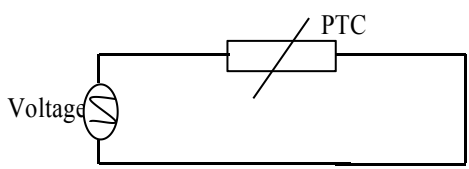
D	7.5±0.5	mm
T	2.0±0.5	mm
r	0-1.5	mm

## 2. PACKING AND STORAGE 包装和存储

2-1. Material of Packing 包装材料	1. Inner Foam Box 内泡沫盒 2. Carton 纸箱
2-2. Packing Method 装箱方式	1. A carton to be placed ten foam box 一个纸箱内有十个泡沫盒 2. Qty/Per Carton:
2-3. Storage Condition 存储条件	Temperature 温度: -10℃~+40℃ Humidity 湿度: ≤70%RH Term 期限: ≤12 months (First-in/ First-out 先进先出) After unpacking of the minimum package, reseal it promptly or store it inside a sealed container with a drying agent. 尽量保证开口最小化, 立即重新封好, 并贮存在密封、带有干燥剂的容器中。

Part No: MZ4P7S0820-18NV14	<b>PTC THERMISTOR</b> 18Ω ± 30%	Rev: 0/A (Dec. 10, 19)  Page 2 of 5
-------------------------------	------------------------------------	---

### 3.ELECTRICAL CHARACTERISTICS 电气性能

Item 指标项目	Specification 技术要求	Test Conditions & Methods 测试条件/方法
3-1. Rated Zero-power Resistance 额定零功率电阻 (R <sub>N</sub> )	18Ω ± 30%	Ambient temp. range 环境温度 : 25℃ ± 1℃ Testing voltage 测试电压 : 1.5V <sub>DC</sub>
3-2. Curie Temperature 居里温度 (T <sub>C</sub> )	65 ± 10℃ (只作为参考)	The resistance at T <sub>C</sub> is twice of R <sub>N</sub> 电阻为零功率电阻的 2 倍时所对应的温度为 T <sub>C</sub> 。
3-3.Max.Operating Voltage 工作电压	14V	
3-4.Surface Temperature 表面温度	70 ± 10℃	At ambient Temperature 环境温度: 25℃ ± 2℃ Applying Voltage 测试电压:14V Test Instruments 测试仪表:Digital Thermometer 数显温度计 After applying 14V for 10minutes , test the middle of the disc temperature.14V 通电 10 分钟后测试芯片中部的温度。
3-5. Withstand Voltage(U <sub>b</sub> ) 耐电压 (U <sub>b</sub> )	500V/60S	At ambient Temperature 环境温度: 25℃ ± 2℃ Test circuit diagram 测试电路如图: 
3-6. Corresponding resistance at 70℃ 70℃对应阻值	> 300 Ω	

### 4. Test for life tests 寿命测试

4-1.常温断续负荷测试 Room temperature intermittent load test	外观、结构、电性能无异常。 There is no abnormal appearance, structure and electrical properties.	在环境温度 25 ± 2℃ 中施加电压 24V <sub>DC</sub> , 通电 60s, 断电 300s, 循环进行 1000 次。 at 25±2℃ apply 265V <sub>AC</sub> for 60sec on and 300sec off, total 1000 cycles.
---	--	--

Part No:

MZ4P7S0820-18NV14

PTC THERMISTOR

18Ω±30%

Rev: 0/A (Dec. 10, 19)

Page 3 of 5

5.PART NUMBER CODE 规格代码说明

Example 例如:

<u>MZ4</u>	<u>P7</u>	<u>S0820</u>	<u>- 18</u>	<u>N</u>	<u>V14</u>
(1)	(2)	(3)	(4)	(5)	(6)

(1) -- Heating PTC thermistor  
加热用 PTC 热敏电阻器

(2) -- Curie Temperature  
居里温度  
P6---60°C    P7---70°C  
X1---110°C   X8---180°C  
Y2---220°C   Y8---270°C

(3) -- Disc Size  
芯片尺寸  
S0870---Φ8.0\*7.0  
S202030---L20\*W20\*T3.0

(4) -- Resistance at 25°C  
常温电阻值:  
3R5---3.5 Ω  
150---15 Ω  
181---180 Ω  
122---1200 Ω

(5) -- Tolerance of Resistance  
电阻值偏差  
M---±20%  
N---±30%  
X---±25%  
S---Specialties

(6) -- Rated Voltage  
工作电压  
3V7---3.7V  
V14---14V  
V110---110V  
V265---265V

Part No:

MZ4P7S0820-18NV14

**PTC THERMISTOR**

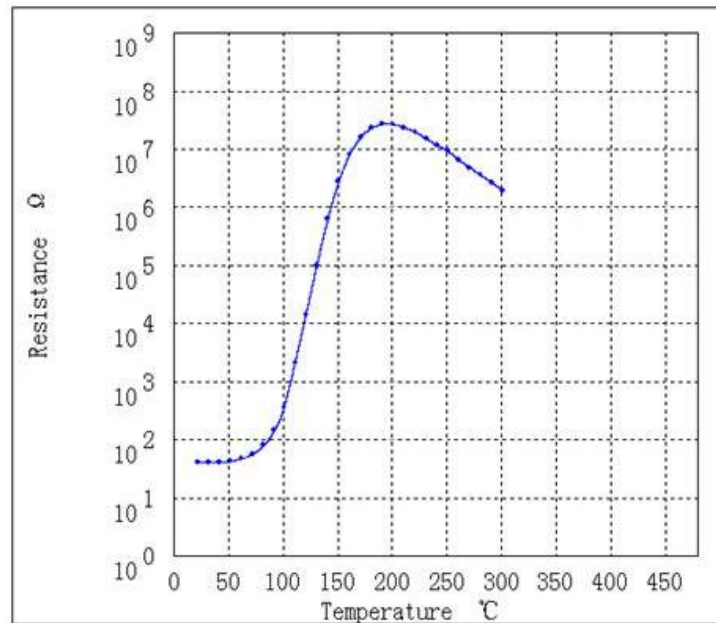
$18\Omega \pm 30\%$

Rev: 0/A (Dec. 10, 19)

Page 4 of 5

## 6.R-T CURVE 阻温特性曲线图

Part No: MZ4P7S0820-181NV14



## 7. ATTENTION (使用注意事项)

(1) 使用本产品之前请务必阅读本规格书。

Please read this specification before use the product.

(2) 为避免引起 PTC 热敏电阻性能劣化与元件破坏、冒烟、起火等现象，请严守下列事项：

Please do not expose posistor to any abnormal environment.Or it may deteriorate posistor's character, worsely,may cause malfunction(or damage).

●使用时请不要超过最大使用电压；

Please use posistor within the specified maximum voltage.

●由于 PTC 热敏电阻发热，使周围的部件、材料受到热影响，请确认不要造成劣化与损伤。特别对于供电部位（引出端子与基板等），因为温度升高，请在设计时考虑其耐热性；

When this product is operated,please make sure that surrounding parts and inserting material can withstand the temperature.If the surrounding part and materials is kept under such condition,they may be deteriorated or may produce harmful gas(C12,H2S,NH3,Sox,Noxetc.).And,such harmful gas may deteriorate the element.

●PTC 热敏电阻没有防水结构、耐药结构及耐溶结构，请不要沾水，也不要沾染油、药品及溶剂；

This product does not have waterproof construction. A splashed water may cause failure mode such as decline of characteristic or current leak.

●请不要超过规定的振动、冲击（落下等）与压力；

The ceramic element of this product is fragile,and care must be taken not to load a excessive pressforce or not to give a shock at handling,Such forces may cause cracking or chipping.

Part No:

MZ4P7S0820-18NV14

**PTC THERMISTOR**

18Ω±30%

Rev: 0/A (Dec. 10, 19)

Page 5 of 5

- 规定保管场所的温度-10℃ ~+40℃，相对湿度为 85%RH 以下，并且要避免急剧的温度变化、直射阳光，避免腐蚀性气体、灰尘、尘土的气氛；不要施加过重的压力，使包装状态保持原样；

Please store posistor under following conditions,without breaking package

①Storage temperature:between-10℃ and 40℃

Storage humidity: less than 85%RH(no dew)

②Storage place : keep away from sun, any halogen gas,such as chorine or sulfurous Materials.

- 请不要在下列环境下使用：

Please do keep Posistor away

①腐蚀性气体（Cl<sub>2</sub>、NH<sub>3</sub>、SO<sub>x</sub>、NO<sub>x</sub> 等）

From caustic and reductive gas(such as Cl<sub>2</sub>, H<sub>2</sub>S, NH<sub>3</sub>, SO<sub>x</sub>, NO<sub>x</sub>, etc.)

②具有挥发性、易燃性气体的气氛

From volatile and combustibile gas.

③置于有水、盐水、油渍等地方

From water salt solution, oil, lotion and organic solvent.

(3) PTC 热敏电阻是依照指定的用途而综合设计的，请不要在指定的用途以外使用。

You are requested not to use our product deviating from the agreed specifications.

(4) 请在电路设计时安装 PTC 热敏电阻以后，必须进行可靠性评价试验，已确认 PTC 热敏电阻无异常。

Please make sur ethat your product has beenevaluated in view of your specifications with our product

Being mounted to your product

(5) 请回传贵司签字确认的规格书复印件，如果到时没有回传我司将视为接受本规格书。

Please return one duplicate of this product specification to us with your signature to acknowledge your receipt.If the duplicate is not returned by the date this product specification will be deemed to have been received by you.

## 8. 本产品符合欧盟 RoHS 指令

RoHS-compatible

