0402 Series Multi-Precision Chip Thermistor 103F3435FA 10Kohm 3435k

Our Product Introduction

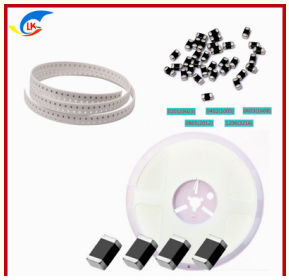
Basic Information

- Place of Origin: Dongguan,Guangdong,China
- Brand Name: LINKUN
- Certification: UL,ROHS,REACH
- Model Number: 0402 103F3435FA
- Minimum Order Quantity: 10000 Pieces
- Price: Negotiation
- Packaging Details: Tape, 10000pcs/disk
- Delivery Time: 10 workdays
- Payment Terms: T/T, Western Union, MoneyGram
- Supply Ability: 1000,000,000 Pieces Per Month

Product Specification

- Thermal Time Constant: <5S
- Permissible Operating Current (25°C): 0.31mA
- Time Constant: <=30S
- Nominal Zero-Power Resistance: 4.7KΩ-150KΩ
- Operating Temperature Range: -40°C~+125°C
- Dissipation Factor: <=1.0mW/°C
- Storage Temperature Range: -40°C~+125°C
- Size: 0201-1206
- Highlight: **NTC 0402 series Thermistor**, **Multi-Precision Chip Thermistor**,

More Images



Our Product Introduction

for more products please visit us on lk-thermistor.com

Product Description

2 Product Identification(Part Number)

QN	0402	X	103	F	3435	F	A
①	②	③	④	⑤	⑥	⑦	⑧

① Type	
QN	Chip NTC Thermistor

②(mm) External Dimensions (L×W×T)	
0201[0603]	0.60×0.30×0.30
0402[1005]	1.00×0.50×0.50
0603[1608]	1.60×0.80×0.80
0805[2012]	2.00×1.25×0.85
1206[3216]	3.20×1.60×0.85

③ Delimiter
X

④Nominal Zero-Power Resistance at 25℃	
222	2.2kΩ
103	10kΩ
474	470kΩ

⑤ Tolerance of Resistance	
F	±1%
G	±2%
H	±3%
J	±5%

⑥ B Constant	
3435	3435K
3950	3950K
4250	4250K

⑦ Tolerance of B Constant	
F	±1%
H	±3%

⑧ B constant calculation method	
A	25℃&85℃
B	25℃&50℃

3 Electrical Characteristics

1) F Series

Part No	Resistance (25℃) (kΩ)	B Constant (25/50℃) (K)	B Constant (25/85℃) (K)	Permissible Operating Current (25℃) (mA)	Dissipation Factor (mW/℃)	Thermal Time Constant (s)	Rated Electric Power(25℃) (mW)	Operating ambient temperature (℃)
QN0402X103F3435FA	10±1%	3380±1%	3435±1%	0.31	1.0	<3	100	-40～+125
QN0402X103F3450FB	10±1%	3450±1%	3500	0.31				
QN0402X103F3950FB	10±1%	3950±1%	3987	0.31				
QN0402X223F3950FB	22±1%	3950±1%	3987	0.21				
QN0402X333F4050FB	33±1%	4050±1%	4100	0.17				
QN0402X473F4050FB	47±1%	4050±1%	4100	0.14				
QN0402X683F4150FB	68±1%	4150±1%	4210	0.12				
QN0402X104F3950FB	100±1%	3950±1%	3987	0.10				
QN0402X104F4250FB	100±1%	4250±1%	4310	0.10				
QN0402X474F4050FA	470±1%	4000±1%	4050±1%	0.04				

2) H Series

Part No	Resistance (25℃) (kΩ)	B Constant (25/50℃) (K)	B Constant (K)	Permissible Operating Current (25℃) (mA)	Dissipation Factor (mW/℃)	Thermal Time Constant (s)	Rated Electric Power(25℃) (mW)	Operating ambient temperature (℃)
QN0402X103H3435FA	10±3%	3380±1%	3435±1%	0.31	1.0	<3	100	-40～+125
QN0402X103H3450FB	10±3%	3450±1%	3500	0.31				
QN0402X103H3950FB	10±3%	3950±1%	3987	0.31				
QN0402X223H3950FB	22±3%	3950±1%	3987	0.21				
QN0402X333H4050FB	33±3%	4050±1%	4100	0.17				
QN0402X473H4050FB	47±3%	4050±1%	4100	0.14				
QN0402X683H4150FB	68±3%	4150±1%	4210	0.12				
QN0402X104H3950FB	100±3%	3950±1%	3987	0.10				
QN0402X104H4250FB	100±3%	4250±1%	4310	0.10				

3) J Series

Part No	Resistance (25℃) (kΩ)	B Constant (25/50℃) (K)	B Constant (25/85℃) (K)	Permissible Operating Current (25℃) (mA)	Dissipation Factor (mW/℃)	Thermal Time Constant (s)	Rated Electric Power(25℃) (mW)	Operating ambient temperature (℃)
QN0402X103J3435FA	10±5%	3380±1%	3435±1%	0.31	1.0	<3	100	-40～+125
QN0402X103J3450FB	10±5%	3450±1%	3500	0.31				
QN0402X103J3950FB	10±5%	3950±1%	3987	0.31				
QN0402X223J3950FB	22±5%	3950±1%	3987	0.21				
QN0402X333J4050FB	33±5%	4050±1%	4100	0.17				
QN0402X473J4050FB	47±5%	4050±1%	4100	0.14				
QN0402X683J4150FB	68±5%	4150±1%	4210	0.12				
QN0402X104J3950FB	100±5%	3950±1%	3987	0.10				
QN0402X104J4250FB	100±5%	4250±1%	4310	0.10				
QN0402X474J4050FA	470±5%	4000±1%	4050±1%	0.04				

Product Description:

4 Test and Measurement Procedures

Test Conditions

Unless otherwise specified, the standard atmospheric

a. Aconditions for measurement/test as: mbient Temperature: 20±15℃

b. Relative Humidity: 65±20%

c. Air Pressure: 86kPa to 106kPaf any doubt on the results, measurements/tests should be made within the following limits:

a. Ambient Temperature: 25±2℃

b. Relative Humidity: 65±5%

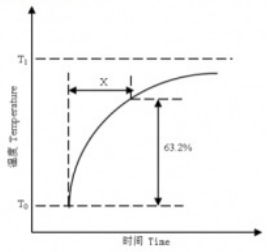
c. Air Pressure: 86kPa to 106kPa

Inspection Equipment

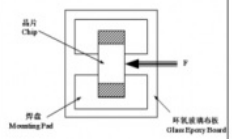
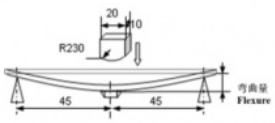
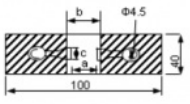
Visual Examination: 20×magnifier

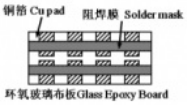
Resistance value test: Thermistor resistance tester

5 Electrical Test

No.	Items	Test Methods and Remarks
1	Nominal Zero-Power Resistance at 25℃(R25)	Ambient temperature：25±0.05℃ Measuring electric power：≤0.1mW
2	Nominal B Constant	Measure the resistance at the ambient temperature of 25±0.05℃, 50±0.05℃ or 85±0.05℃. $B(25\text{-}50℃)=\frac{\ln R_{25}-\ln R_{50}}{1/T_{25}-1/T_{50}}$ $B(25\text{-}85℃)=\frac{\ln R_{25}-\ln R_{85}}{1/T_{25}-1/T_{85}}$ T：Absolute temperature (K)
3	Thermal Time Constant	The total time for the temperature of the thermistor to change by 63.2% of the difference from ambient temperature T_0 (℃) to T_1 (℃) by the drastic change of the power applied to thermistor from Non-zero Power to Zero-Power state, normally expressed in second(S). 

6 Reliability Test

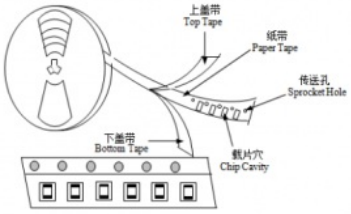
Items	Standard	Test Methods and Remarks	Requirements
Terminal Strength	IEC 60068-2-21	Solder the chip to the testing jig (glass epoxy board shown in the right) using eutectic solder. Then apply a force in the direction of the arrow. Size / F / Duration: 0201, 0402, 0603 — 5N — 10±1s; 0805 — 10N — 10±1s 	No removal or split of the termination or other defects shall occur.
Resistance to Flexure	IEC 60068-2-21	Solder the chip to the test jig (glass epoxy board shown in the right) using a eutectic solder. Then apply a force in the direction shown as follow;  Size / Flexure / Pressurizing Speed / Duration: 0201, — 1mm; 0402, 0603, 0805 — 2mm; <0.5mm/s; 10±1s	① No visible damage. ② |ΔR25/R25| ≤5% unit：mm Type / a / b / c: 0201 — 0.25 — 0.3 — 0.3; 0402 — 0.4 — 1.5 — 0.5; 0603 — 1.0 — 3.0 — 1.2; 0805 — 1.2 — 4.0 — 1.65 

Vibration	IEC 60068-2-80	① Solder the chip to the testing jig (glass epoxy board shown in the left) using eutectic solder. ② The chip shall be subjected to a simple harmonic motion having total amplitude of 1.5mm, the frequency being varied uniformly between the approximate limits of 10 and 55 Hz. ③ The frequency ranges from 10 to 55 Hz and return to 10 Hz shall be traversed in approximately 1 minute. This motion shall be applied for a period of 2 hours in each 3mutually perpendicular directions (total of 6 hours).	No visible damage. 
Dropping	IEC 60068-2-32	Drop a chip 10 times on a concrete floor from a height of 1 meter.	No visible damage.

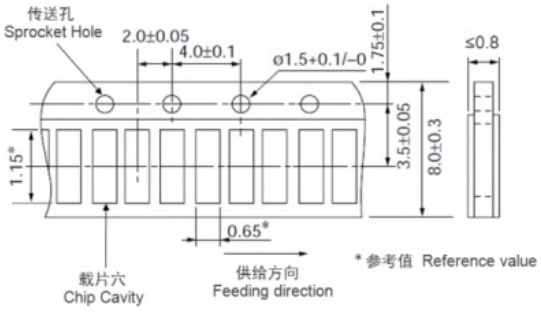
7 Taping

Type	0402
Tape thickness(mm)	0.5±0.15
Tape material	Paper Tape
Quantity per Reel	10K

(1) Taping Drawings

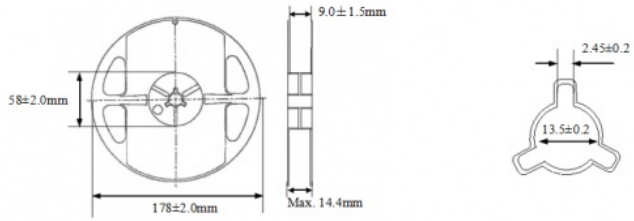


(2) Paper Tape Dimensions (Unit：mm)



Resistance to high temperature load	IEC 60539-1 5.25.4	85±2℃in air with permissive operating current for 1000±48 hours ② The chip shall be stabilized at normal condition for 1~2 hours before measuring.	No visible damage. ② | ΔR25/R25 | ≤5% ③ | ΔB/B | ≤2%

(3) Reel Dimensions(Unit：mm)



8 Storage

- **Storage Conditions**

a. Storage Temperature: -10℃～40℃

b. Relative Humidity: ≤75%RH

c. Keep away from corrosive atmosphere and sunlight.

- **Period of Storage: 6 Months**

9 Notes & Warnings

- The QN series thermistors shall not be operated and stored under the following environmental condition:

(1) Corrosive or deoxidized atmospheres

(such as chlorine, sulfurated hydrogen, ammonia, sulfuric acid, nitric oxide and so on)

(2) Volatile or inflammable atmospheres

(3) Dusty condition

(4) Excessively high or low pressure condition

(5) Humid site

(6) Places with brine, oil, chemical liquid or organic solvent

(7) Intense vibration

(8) Places with analogously deleterious conditions

- The ceramic body of the QN series thermistors is fragile, no excessive pressure or impact shall be exerted on it.
- The QN series thermistors shall not be operated beyond the specified "Operating Temperature Range" in the catalog.

SMD NTC Thermistor is a high precision chip NTC thermistor, which is a negative temperature thermistor that can be used to detect temperature change accurately. It has a constant (25/50℃) of 3200/ 3380/ 3435/ 3600/ 3950/ 4100/ 4250/ 4500 K and a rated electric power(25℃) of 100 mW, and its dissipation factor is less than or equal to 1.0 mW/℃. The storage temperature range is -40℃ to +125℃, and the permissible operating current (25℃) is 0.31 mA. This NTC thermistor is highly accurate and reliable, making it ideal for temperature measurement, sensing, and control applications.

Technical Parameters:

Product	**SMD NTC Thermistor**
Operating Temperature Range	-40℃~+125℃
Accuracy	±1%~±5%
Dissipation Factor	≤1.0mW/℃
Size	0402-1206
Constant (25/50℃) (K)	3200/ 3380/ 3435/ 3600/ 3950/ 4100/ 4250/ 4500
Time Constant	≤30S
Permissible Operating Current (25℃)	0.31mA

Nominal Zero-Power Resistance	4.7KΩ-150KΩ
Rated Electric Power (25℃)	100(mW)
Size	0603(1608),0805(2012),0402(1005),1206(3216)

Applications:

SMD NTC Thermistor Factory Direct Sales

LINKUN provides a wide range of SMD NTC Thermistors and customized solutions to meet customer needs. With UL, ROHS, REACH certification, our SMD NTC Thermistors are available in 1206 (3216), 1210 (3528), 1608 (4050) packages. Our SMD NTC Thermistors are characterized by a wide operating temperature range of -40℃~+125℃, a permissible operating current of 0.31mA at 25℃, and a nominal zero-power resistance of 4.7KΩ-150KΩ. The time constant of our SMD NTC Thermistors is less than or equal to 30S. We offer factory direct sales and accept orders with a minimum quantity of 4000 pieces. Prices are based on the quantity and delivery time is 10 workdays. Payment methods include T/T, Western Union, and MoneyGram. We are capable of supplying up to 1,000,000,000 pieces per month.

Customization:

SMD NTC Thermistor

Brand Name: LINKUN
Model Number: 1608X103F3450FB
Place of Origin: Dongguan,Guangdong,China
Certification: UL,ROHS,REACH
Minimum Order Quantity: 4000 Pieces
Price: TBA
Packaging Details: Tape, 4000pcs/disk
Delivery Time: 10 workdays
Payment Terms: T/T, Western Union, MoneyGram
Supply Ability: 1000,000,000 Pieces Per Month
Accuracy: ±1%~±5%
Nominal Zero-Power Resistance: 4.7KΩ-150KΩ
Time Constant: <=30S
Rated Electric Power(25℃): 100(mW)
Product: SMD NTC Thermistor
Our SMD NTC thermistor production plant is a professional supplier of SMD NTC thermistor 0805(2012), high precision chip NTC thermistor. We provide customized services to meet your specific needs.

Support and Services:

SMD NTC Thermistor provides technical support and services including:
24/7 online customer support
Technical guidance and troubleshooting
Replacement parts and repairs
On-site installation and maintenance
Training and seminars

Packing and Shipping:

SMD NTC Thermistor's Packaging and Shipping:
The SMD NTC Thermistor will be packed in a static-proof bag and placed in a cardboard box.
The box should be labeled with the product name, quantity, and batch number.
The package should be sealed with a waterproof tape.
The package should be shipped with a reliable carrier or express delivery service.

FAQ:

Q: What is SMD NTC Thermistor?

A: SMD NTC Thermistor is a type of negative temperature coefficient thermistor for surface mount devices (SMD).

Q: What is the brand name of the product?

A: The brand name of the product is LINKUN.

Q: What is the model number of the product?

A: The model number of the product is 1608X103F3450FB.

Q: Where is the product from?

A: The product is from Dongguan, Guangdong, China.

Q: What are the certifications?

A: The certifications are UL, ROHS, and REACH.

Q: What is the minimum order quantity?

A: The minimum order quantity is 4000 pieces.

Dongguan Linkun Electronic Technology Co., Ltd.

13423305709 huangju@lk-ptc.com lk-thermistor.com

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