



682J3600 6.8Kohm Chip NTC Thermistor Surface Mount 3600k For Temperature Compensation

Our Product Introduction

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

Basic Information

- Place of Origin: Dongguan,Guangdong,China
- Brand Name: LINKUN
- Certification: UL,ROHS,REACH
- Model Number: 0402 682J3600F
- Minimum Order Quantity: 10000 Pieces
- Price: TBA
- 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

- Nominal Zero-Power Resistance: 4.7K Ω -150K Ω
- Size: 0201-1206
- Operating Temperature Range: -40 $^{\circ}$ C~+125 $^{\circ}$ C
- Accuracy: $\pm 1\% \sim \pm 5\%$
- Product: SMD NTC Thermistor
- Thermal Time Constant: <5S
- Dissipation Factor: $\leq 1.0\text{mW}/^{\circ}\text{C}$
- Storage Temperature Range: -40 $^{\circ}$ C~+125 $^{\circ}$ C
- Highlight: NTC 6.8Kohm thermistor,
3600k chip NTC thermistor,
NTC thermistor for temperature compensation



More Images



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		④ Nominal Zero-Power Resistance at 25℃		⑥ B Constant	
QN	Chip NTC Thermistor	222	2.2kΩ	3435	3435K
		103	10kΩ	3950	3950K
		474	470kΩ	4250	4250K
② (mm) External Dimensions (L×W×T)		⑤ Tolerance of Resistance		⑦ Tolerance of B Constant	
0201[0603]	0.60×0.30×0.30	F	±1%	F	±1%
0402[1005]	1.00×0.50×0.50	G	±2%	H	±3%
0603[1608]	1.60×0.80×0.80	H	±3%	⑧ B constant calculation method	
0805[2012]	2.00×1.25×0.85	J	±5%	A	25℃&85℃
1206[3216]	3.20×1.60×0.85			B	25℃&50℃
③ Delimiter					
	X				

Specifications for Chip NTC thermistor

3/10

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				

Specifications for Chip NTC thermistor

4/10

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				

4 Test and Measurement Procedures

Test Conditions

Unless otherwise specified, the standard atmospheric

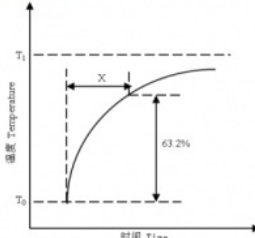
- Conditions for measurement/test as: ambient Temperature: 20±15℃
- Relative Humidity: 65±20%
- Air Pressure: 86kPa to 106kPa If any doubt on the results, measurements/tests should be made within the following limits:
 - Ambient Temperature: 25±2℃
 - Relative Humidity: 65±5%
 - Air Pressure: 86kPa to 106kPa

Inspection Equipment

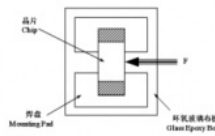
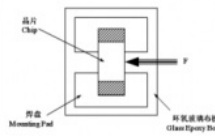
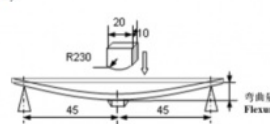
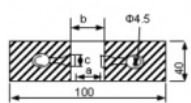
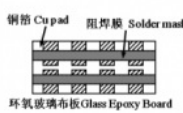
Visual Examination: 20× magnifier

Resistance value test: Thermistor resistance tester

5 Electrical Test

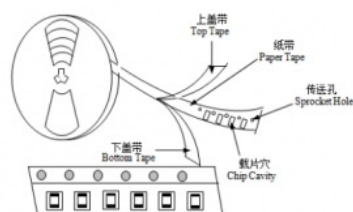
No.	Items	Test Methods and Remarks
1	Nominal Zero-Power Resistance at 25℃(R25)	Ambient temperature : 25±0.05℃ Measuring electric power : ≤0.1mW
2	Nominal B Constant	Measure the resistance at the ambient temperature of 25±0.05℃, 50±0.05℃ or 85±0.05℃. $B(25-50^{\circ}\text{C}) = \frac{\ln R_{25} - \ln R_{50}}{1/T_{25} - 1/T_{50}}$ $B(25-85^{\circ}\text{C}) = \frac{\ln R_{25} - \ln R_{85}}{1/T_{25} - 1/T_{85}}$ T : Absolute temperature (K)
3	Thermal Time Constant	<p>The total time for the temperature of the thermistor to change by 63.2% of the difference from ambient temperature T₀ (°C) to T₁ (°C) by the drastic change of the power applied to thermistor from Non-zero Power to Zero-Power state, normally expressed in second(S).</p> 

6 Reliability Test

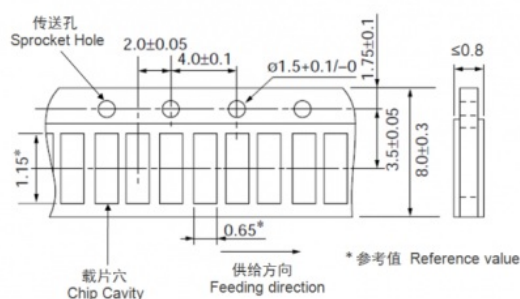
Items	Standard	Test Methods and Remarks	Requirements																														
Terminal Strength	IEC 60068-2-21	<p>Solder the chip to the testing jig (glass epoxy board shown in the right) using eutectic solder. Then apply a force in the direction of the arrow.</p> <table border="1"> <tr> <th>Size</th><th>F</th><th>Duration</th></tr> <tr> <td>0201, 0402, 0603</td><td>5N</td><td rowspan="2">10±1s</td></tr> <tr> <td>0805</td><td>10N</td></tr> </table> 	Size	F	Duration	0201, 0402, 0603	5N	10±1s	0805	10N	<p>No removal or split of the termination or other defects shall occur.</p> 																						
Size	F	Duration																															
0201, 0402, 0603	5N	10±1s																															
0805	10N																																
Resistance to Flexure	IEC 60068-2-21	<p>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;</p>  <table border="1"> <tr> <th>Size</th><th>Flexure</th><th>Pressurizing Speed</th><th>Duration</th></tr> <tr> <td>0201,</td><td>1mm</td><td rowspan="2"><0.5mm/s</td><td rowspan="2">10±1s</td></tr> <tr> <td>0402, 0603, 0805</td><td>2mm</td></tr> </table>	Size	Flexure	Pressurizing Speed	Duration	0201,	1mm	<0.5mm/s	10±1s	0402, 0603, 0805	2mm	<p>① No visible damage. ② $\Delta R25/R25 \leq 5\%$</p> <p>unit : mm</p> <table border="1"> <tr> <th>Type</th><th>a</th><th>b</th><th>c</th></tr> <tr> <td>0201</td><td>0.25</td><td>0.3</td><td>0.3</td></tr> <tr> <td>0402</td><td>0.4</td><td>1.5</td><td>0.5</td></tr> <tr> <td>0603</td><td>1.0</td><td>3.0</td><td>1.2</td></tr> <tr> <td>0805</td><td>1.2</td><td>4.0</td><td>1.65</td></tr> </table> 	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
Size	Flexure	Pressurizing Speed	Duration																														
0201,	1mm	<0.5mm/s	10±1s																														
0402, 0603, 0805	2mm																																
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	<p>① Solder the chip to the testing jig (glass epoxy board shown in the left) using eutectic solder.</p> <p>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.</p> <p>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 3 mutually perpendicular directions (total of 6 hours).</p>	<p>No visible damage.</p> 																														
Dropping	IEC 60068-2-32	Drop a chip 10 times on a concrete floor from a height of 1 meter.	No visible damage.																														

(1) Taping Drawings

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



(Unit: mm)



Resistance
to high
temperature
load

IEC 60539-1
5.25.4

②

85±2 °C in air with permissive operating current for 1000±48 hours

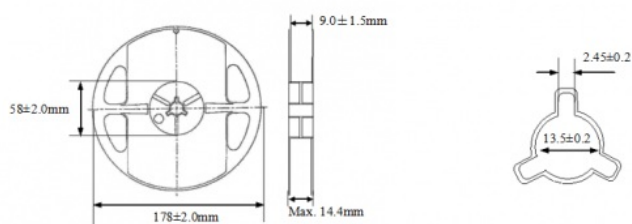
The chip shall be stabilized at normal condition for 1~2 hours before measuring.

No visible damage.

③ $|\Delta B/B| \leq 2\%$

9/10

(3) Reel Dimensions(Unit: mm)



8 Storage

- **Storage Conditions**

- a. Storage Temperature: -10°C ~ 40°C
b. Relative Humidity: $\leq 75\%RH$
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.

Product Description:

SMD NTC Thermistor is a high precision chip NTC thermistor with a 0603 (1608) package. It has excellent electrical and thermal characteristics, and its thermal time constant is less than 5S. It has nominal zero-power resistance of 4.7KΩ-150KΩ and permissible operating current of 0.31mA at 25°C. The time constant is ≤30S and its constant is 3200/ 3380/ 3435/ 3600/ 3950/ 4100/ 4250/ 4500 at 25/50°C. It is reliable and accurate, and is widely used in temperature sensing applications.

Technical Parameters:

Property	Description
Size	0402-1206
Nominal Zero-Power Resistance	4.7KΩ-150KΩ
Permissible Operating Current (25°C)	0.31mA
Constant (25/50°C) (K)	3200/ 3380/ 3435/ 3600/ 3950/ 4100/ 4250/ 4500
Rated Electric Power (25°C)	100mW
Storage Temperature Range	-40°C~+125°C
Operating Temperature Range	-40°C~+125°C
Thermal Time Constant	<5S
Time Constant	≤30S
Accuracy	±1%~±5%

Applications:

LINKUN, the factory direct sales leader in SMD NTC Thermistor, offers chip package thermistor with UL, ROHS, and REACH certifications. The minimum order quantity is 4000 pieces, with tape packaging and 10 workdays delivery time. Acceptable payment terms are T/T, Western Union, and MoneyGram. With a supply ability of 1000,000,000 pieces per month, the product also has a dissipation factor of less than or equal to 1.0mW/°C and a time constant of less than or equal to 30S, in addition to a rated electric power of 100mW at 25°C and a size of 0402-1206.

Customization:

Custom Service for 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

Operating Temperature Range: -40°C~+125°C

Storage Temperature Range: -40°C~+125°C

Time Constant: ≤30S

Dissipation Factor: ≤1.0mW/°C

Product: SMD NTC Thermistor

Linkun offers a tailor-made service for **SMD NTC Thermistor**. Our SMD negative temperature thermistor is certified by UL, ROHS, REACH and has excellent performance in operating temperature range -40°C~+125°C and storage temperature range -40°C~+125°C. It also offers a quick time constant that is less than or equal to 30S and a dissipation factor that is less than or equal to 1.0mW/°C. We provide 4000 pieces per disk and accept payment via T/T, Western Union, or MoneyGram. We guarantee that delivery will be made within 10 workdays. Our monthly supply capability is up to 1000,000,000 pieces. Please contact us for price inquiry.

Support and Services:

SMD NTC Thermistor Technical Support and Service

We offer a wide range of technical support and services for our SMD NTC Thermistor products, including:

24/7 technical support

On-site installation and maintenance

Full product documentation

Online troubleshooting and diagnostic tools

Repair and replacement services

Live technical support chat

For more information on our technical support and services, please contact us today.

Packing and Shipping:

Packaging and Shipping

SMD NTC Thermistor products are packaged in anti-static material, with foam padding around the product for extra protection. The product is then sealed in a moisture-proof bag. Shipping is done through a third-party courier service which provides tracking information and delivery updates.

FAQ:

SMD NTC Thermistor FAQs

Q: What is the brand name for the SMD NTC Thermistor?

A: The brand name for the SMD NTC Thermistor is LINKUN.

Q: What is the model number for the SMD NTC Thermistor?

A: The model number for the SMD NTC Thermistor is 1608X103F3450FB.

Q: Where are the SMD NTC Thermistors manufactured?

A: The SMD NTC Thermistors are manufactured in Dongguan, Guangdong, China.

Q: What certifications does the SMD NTC Thermistor have?

A: The SMD NTC Thermistor has UL, ROHS and REACH certifications.

Q: What is the minimum order quantity for the SMD NTC Thermistor?

A: The minimum order quantity for the SMD NTC Thermistor is 4000 pieces.



Dongguan Linkun Electronic Technology Co., Ltd.



13423305709



huangju@lk-ptc.com



lk-thermistor.com

Room 101, No. 21, Huayuanzai Road, Chongmei, Chashan Town, Dongguan City, Guangdong Province