# 223F3950FB NTC Surface Mount Thermistor 333F4050 1%-5% Chip

# **Basic Information**

Place of Origin: Dongguan, Guangdong, China

• Brand Name: LINKUN

• Certification: UL,ROHS,REACH

Model Number: 0603(1608)X223F3950

0603(1608)X333F4050

Minimum Order

Quantity:

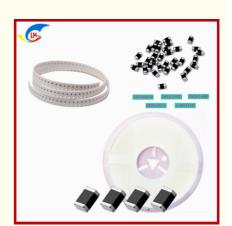
4000 Pieces

Price: Negotiation

• Packaging Details: Tape, 4000pcs/disk

• Delivery Time: 10 workdays

Payment Terms: T/T, Western Union, MoneyGram
 Supply Ability: 1000,000,000 Pieces Per Month



# Product Specification

• Size: 0402-1206

• Thermal Time Constant: <5S

Product: SMD NTC Thermistor

• Constant (25/50°C) K: 3200/ 3380/ 3435/ 3600/ 3950/ 4100/ 4250/

4500

• Dissipation Factor: <=1.0mW/°C

• Nominal Zero-Power 4.7KΩ-150KΩ

Resistance:

• Accuracy: ±1%~±5%

• Time Constant: <=30S

Highlight: 3200 NTC thermistor, surface mount thermistor



# More Images







# **Product Description**

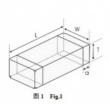


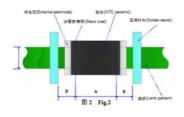
Specifications for Chip NTC thermistor

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# 1 Shape and Dimensions

- Dimensions: See Fig.1 and Table 1.
- Recommended PCB pattern for reflow soldering: See Fig.2 and Table 1





		unit: inch[mm]					
Type	L	W	T	a	A	В	С
0603 [1608]	0.063±0.006 [1.6±0.15]	0.031±0.006 [0.8±0.15]	0.031±0.006 [0.8±0.15]	0.012±0.008 [0.3±0.2]	[0.6-0.8]	[0.6-0.7]	[0.6-0.8]

### 2 Product Identification(Part Number)

1 Type		Nominal Zero-Po	ower Resistance at 25°C
QN	Chip NTC Thermistor	222	2.2kΩ
	Chip NTC Thermistor	103	10kΩ
2) (mm) External Dime	nsions (L×W×T)	474	470kΩ
0201[0603]	0.60×0.30×0.30		
0402[1005]	1.00×0.50×0.50	⑤ Tolerance of	Resistance
0603[1608]	1.60×0.80×0.80	F	±1%
0805[2012]	2.00×1.25×0.85	G	±2%
1206[3216]	3.20×1.60×0.85	Н	±3%
3) Delimiter		J	±5%

X

103	10kΩ
474	470kΩ
5 Tolerance of F	tesistance ±1%

B Constant					
3435	3435K				
3950	3950K				
4250	4250K				

Tolerance of	B Constant
F	±1%
Н	±3%

B constant o	alculation method
A	25℃&85℃
В	25°C&50°C

Specifications for Chip NTC thermistor

### 3 Electrical Characteristics

#### 1) F Series

Part No	Resistance (25°C) (kΩ)	B Constant (25/50°C) (K)	B Constant (25/85°C) (K)	Permissible Operating Current (25°C) (mA)	Dissipation Factor (mW/°C)	Thermal Time Constant (s)	Rated Electric Power(25°C) (mW)	Operating ambient temperatur (°C)
QN0603X103F3435FA	10±1%	3380±1%	3435±1%	0.31				
QN0603X103F3450FB	10±1%	3450±1%	3500	0.31				
QN0603X103F3950FB	10±1%	3950±1%	3987	0.31				
QN0603X223F3950FB	22±1%	3950±1%	3987	0.21				
QN0603X333F4050FB	33±1%	4050±1%	4100	0.17	1.0	<5	100	-40~+12
QN0603X473F4050FB	47±1%	4050±1%	4100	0.14				
QN0603X683F4150FB	68±1%	4150±1%	4210	0.12				
QN0603X104F3950FB	100±1%	3950±1%	3987	0.10				
QN0603X104F4250FB	100±1%	4250±1%	4310	0.10				

### 2) H Series

Part No	Resistance (25°C) (kΩ)	B Constant (25/50°C) (K)	B Constant (25/85°C) (K)	Permissible Operating Current (25°C) (mA)	Dissipation Factor (mW/°C)	Thermal Time Constant (s)	Rated Electric Power(25°C) (mW)	Operating ambient temperature (°C)
QN0603X103H3435FA	10±3%	3380±1%	3435±1%	0.31	1.0		100	.40~+125
QN0603X103H3450FB	10±3%	3450±1%	3500	0.31		<5		
QN0603X103H3950FB	10±3%	3950±1%	3987	0.31				
QN0603X223H3950FB	22±3%	3950±1%	3987	0.21				
QN0603X333H4050FB	33±3%	4050±1%	4100	0.17				
QN0603X473H4050FB	47±3%	4050±1%	4100	0.14				
QN0603X683H4150FB	68±3%	4150±1%	4210	0.12				
QN0603X104H3950FB	100±3%	3950±1%	3987	0.10				
QN0603X104H4250FB	100±3%	4250±1%	4310	0.10				

#### 3) J Series

Part No	Resistance (25°C) (kΩ)	B Constant (25/50°C) (K)	B Constant (25/85°C) (K)	Permissible Operating Current (25°C) (mA)	Dissipation Factor (mW/°C)	Time Constant (s)	Rated Electric Power(25°C) (mW)	Operating ambient temperature (°C)
QN0603X103J3435FA	10±5%	3380±1%	3435±1%	0.31				
QN0603X103J3450FB	10±5%	3450±1%	3500	0.31				
QN0603X103J3950FB	10±5%	3950±1%	3987	0.31				
QN0603X223J3950FB	22±5%	3950±1%	3987	0.21			id a line	
QN0603X333J4050FB	33±5%	4050±1%	4100	0.17	1.0	<5	100	-40~+125
QN0603X473J4050FB	47±5%	4050±1%	4100	0.14				
QN0603X683J4150FB	68±5%	4150±1%	4210	0.12				
QN0603X104J3950FB	100±5%	3950±1%	3987	0.10				
QN0603X104J4250FB	100±5%	4250±1%	4310	0.10				

### 4 Test and Measurement Procedures

#### Test Conditions

Unless otherwise specified, the standard atmospheric

conditions for measurement/test as:

a. Ambient Temperature: 20±15°C

b. Relative Humidity: 65±20% c. Air Pressure: 86kPa to 106kPa

If any doubt on the results, measurements/tests should

be made within the following limits:

a. Ambient Temperature: 25±2 °C

b. Relative Humidity: 65±5%

c. Air Pressure: 86kPa to 106kPa

### Inspection Equipment

Visual Examination: 20× magnifier

Resistance value test: Thermistor resistance tester

Introduction of 0603 series NTC chip thermistor:

NTC thermistor is a kind of ceramic semiconductor thermosensitive crystal sintered from manganese, cobalt and nickel as raw materials. It is extremely sensitive to temperature changes. As the temperature increases, the resistance value decreases exponentially, and the temperature coefficient is as high as (3~6%/°C), and a small temperature change will cause a large change in the resistance value. According to the R-T resistance temperature curve of the thermistor, the precise resistance value of each temperature point can be measured and calculated. In the circuit, the digital correspondence of the temperature can be realized through the resistance value, which is used for temperature measurement and control.

0603 series NTC chip thermistor features:

- 1) Small size, no leads, excellent soldering performance, suitable for high-density surface mount;
- 2) The surface of the ceramic body is encapsulated by glass, which has good moisture resistance, high reliability and stability;
- 3) Wide working temperature range: -40°C~+125°C;
- 4) High precision resistance value and B value constant;
- 5) Comply with RoHS environmental protection standard

0603 series NTC chip thermistor application range:

Temperature measurement: electronic thermometer, electronic perpetual calendar, electronic clock temperature display, electronic gifts, etc.;

Temperature control: temperature sensing of rechargeable batteries in mobile phones, car phones, laptops, smart wearable devices, etc.;

Temperature Compensation: Temperature compensation of transistors, ICs and crystal oscillators in mobile communication devices.

## **Product Description:**

SMD NTC Thermistor is a chip package thermistor, which is widely used in electronic industry. It is a kind of NTC chip thermistor with excellent performance. We offer SMD NTC Thermistor 0805(2012)wholesale sales. The accuracy of this product is within  $\pm 1\% \approx \pm 5\%$ , and its permissible operating current is 0.31mA (25°C). The time constant is <=30S and its dissipation factor is <= 1.0mW/°C. The constant (25/50°C) (K) is 3200/3380/3435/3600/3950/4100/4250/4500. This SMD NTC Thermistor is an ideal choice for many applications.

### **Technical Parameters:**

Parameters	Details
Product	SMD NTC Thermistor 0805(2012), SMD NTC Thermistor 0402(1005), High precision chip NTC thermistor
Permissible Operating Current (25°C)	0.31mA
Constant (25/50°C)(K)	3200/ 3380/ 3435/ 3600/ 3950/ 4100/ 4250/ 4500
Size	0402-1206
Accuracy	±1%~±5%
Thermal Time Constant	<5S
Rated Electric Power(25°C)	100(mW)
Nominal Zero-Power Resistance	4.7ΚΩ-150ΚΩ
Operating Temperature Range	-40°C~+125°C
Dissipation Factor	<=1.0mW/°C

## **Applications:**

LINKUN's SMD NTC Thermistor is a factory direct sales product with 0603(1608) size and negative temperature coefficient thermistor. It has a thermal time constant of less than 5S, rated electric power of 100mW, and an accuracy of ±1%~±5%. It has UL, ROHS, and REACH certifications, with a minimum order quantity of 4000 Pieces. This product is suitable for operating within a temperature range of -40°C~+125°C, and comes with a tape packaging of 4000pcs/disk. The delivery time is 10 workdays, and the payment terms are T/T, Western Union, or MoneyGram. With a supply ability of 1000,000,000 Pieces per month, and a price to be determined, LINKUN's SMD NTC Thermistor is the perfect choice for your temperature sensing needs.

## **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 Nominal Zero-Power Resistance:  $4.7 K\Omega$ -150K $\Omega$  Size: 0402-1206

Storage Temperature Range: -40°C~+125°C Rated Electric Power(25°C): 100(mW) Permissible Operating Current (25°C): 0.31mA

LINKUN is specialized in SMD negative temperature thermistor, Chip package thermistor, Chip package thermistor, NTC thermistor. Our thermistor has a nominal zero-power resistance ranging from  $4.7 \mathrm{K}\Omega$ -150 K $\Omega$ , size from 0402-1206, and rated electric power of 100 mW(25°C). It also has a storage temperature range of -40°C~+125°C and a permissible operating current of 0.31 mA(25°C). We provide UL, ROHS, and REACH certification, and have a minimum order quantity of 4000 pieces. Our delivery time is 10 workdays and we accept payment by T/T, Western Union, or MoneyGram. We supply up to 1000,000,000 pieces per month. Prices vary depending on the order size and requirements.

### **Support and Services:**

We provide technical support and service for SMD NTC Thermistor products, including:

Product selection assistance

Product installation guidance

Product operation instructions and information

Product troubleshooting advice

Product maintenance and repair services

Product replacement and warranty services

Our technical support and service team is available to answer any questions you may have about our SMD NTC Thermistor products.

# Packing and Shipping:

SMD NTC Thermistor will be packaged and shipped in a box with appropriate cushioning to ensure secure transport. The box should be sealed with tape to protect the contents from any potential damage during shipping. The box should be clearly labeled

with the product name, quantity, and other relevant shipping information. The box should be placed on a pallet or in a container to ensure that it is not damaged during transit.

## FAQ:

- Q1: What is the Brand Name of this SMD NTC Thermistor?
- A1: The Brand Name of this SMD NTC Thermistor is LINKUN.
- Q2: What is the Model Number of this SMD NTC Thermistor?
- A2: The Model Number of this SMD NTC Thermistor is 1608X103F3450FB.
- Q3: Where is the Place of Origin of this SMD NTC Thermistor?
- A3: The Place of Origin of this SMD NTC Thermistor is Dongguan, Guangdong, China.
- Q4: What Certifications have this SMD NTC Thermistor passed?
- A4: This SMD NTC Thermistor has passed UL,ROHS,REACH Certifications.
- Q5: What is the Minimum Order Quantity of this SMD NTC Thermistor?
- A5: The Minimum Order Quantity of this SMD NTC Thermistor is 4000 Pieces.



## Dongguan Linkun Electronic Technology Co., Ltd.



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