Practical MF72 6.8D-25 6R8 Ohm Ntc Thermistor Sensor

Our Product Introduction

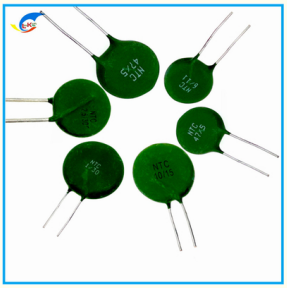
Basic Information

- Place of Origin: Dongguan China
- Brand Name: linkun
- Certification: CE / ROHS / UL / TUV / SGS
- Model Number: MF72 6.8D-25 6R8-25
- Minimum Order Quantity: Negotiation
- Price: Negotiation
- Packaging Details: Export Package / Negotiation
- Delivery Time: 1-3days
- Payment Terms: T/T, L/C, Western Union
- Supply Ability: 24 million per year

Product Specification

- Features: Long-Term Stability And Reliability
- Temperature Coefficient: NTC
- Application: General Purpose, Electronic Product
- Operating Temperature: -55℃ ~ +200℃
- Technology: Ceramic Composition
- Resistance Tolerance: ±20%
- Resistance At 25°C (Ω): 6 (Ω)
- Maximum Steady State Current(A): 9A
- Heat Dissipation Coefficient(mv/℃): 32
- Time Constant(S): 125
- Material: Phenolic/Silicone
- Highlight: **6R8 Ohm Power NTC Thermistor**, **6.8D-25 Power NTC Thermistor**, **Practical MF72 Power NTC Thermistor**

More Images



Product Description

Practical MF72 Power NTC Thermistor 6.8D-25 6.8Ohm 25mm Suitable For Switching Power Supply Inverter Power Supply

LK-MF72 Power Thermistor1.pdf

MF72 Power NTC Thermistor Series
Small size, high power, strong ability to suppress surge current
Fast response
Material constant (B value) is large, and the residual resistance is small
Long life and high reliability
Complete series, wide application range

●Introduction

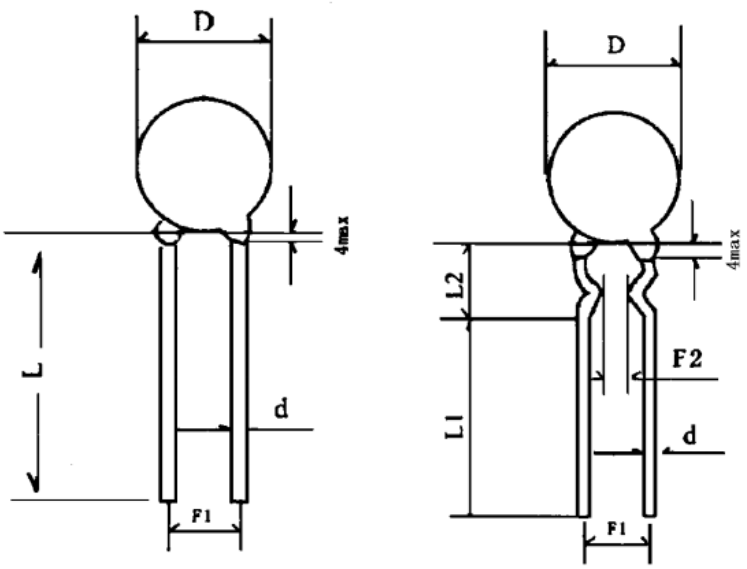
When you turn on an electrical equipment, the surge current can be restrained by a power NTC termistor connected in series with the power circuit. Because of the continuing action of current,temperature of power NTC thermistor raising, the resistance will rapidly drop to a small value, the consumed power can be ignored. So it can't affect normal operating current. Therefore, using power NTC thermistor is a most effectively and most brief measure to restrain surge current, protecting electrical equipment from destruction.

●Applications
◎Conversion power-supply, switch power-supply, ups power-supply
◎Electronic energy saving lamps, electronic ballast and all kinds of electric heater
◎All kinds of RT, display
◎ Bulb and other lighting lamps

●Characteristics
◎Small size, strong power and strong capability of surge current protection.
◎ Fast response to surge current
◎ Big material constant (B value), Small remain resistance
◎Longevity of service. High reliability
◎ Integral series, extensive operating range

● MAIN TECHNICAL PARAMETER

Part No MF 72	Max Steady State Current(A)	Approx.R of Max.Cur.(Ω)	Operating Temp.(℃)	Max surge capacity(UF) 240V/AC
D5	0.1~1	0.353~18.70	-140 ±150	47~100
D7	0.2~2	0.283~11.65	-140 ±150	68~150
D9	0.2~4	0.120~30.30	-140 ±170	47~220
D11	1.2~5	0.095~1.656	-140 ±170	150~470
D13	1.2~7	0.062~2.124	-140 ±200	220~560
D15	1.8~8	0.075~1.652	-140 ±200	330~680
D20	5~11	0.018~0.212	-140 ±200	680~1000
D25	6~12	0.014~0.160	-140 ±200	820~1200



●Dimensions(mm)

Part No Dim(mm) Sym	D max	T max	d ±0.05	F1±1	Straight lead	Kinked lead	
					Lmin	L1min	L2±2
MF72 □D5	7	5	0.6/0.45	5	25	17/5	5
MF72 □D7	9	5	0.6	5	25	17/5	5
MF72 □D9	11	5.5	0.8/0.6	7.5	25	17/5	5
MF72 □D1I	13	5.5	0.8	7.5	25	17/5	5
MF72 □D13	15.5	6	0.8	7.5	25	17/5	5
MF72 □D15	17.5	6	0.8	7.5	25	17/5	5
MF72 □D20	22.5	7	1.0	10	25	/	/
MF72 □D25	27.5	8	1.0	10	25	/	/

MF72 power type NTC thermistor series
Negative temperature coefficient thermistor, also known as NTC thermistor, is a kind of sensor resistance whose resistance value decreases with the increase of temperature. Widely used in various electronic components, such as temperature sensors, resettable fuses and self-adjusting heaters, etc.

Features

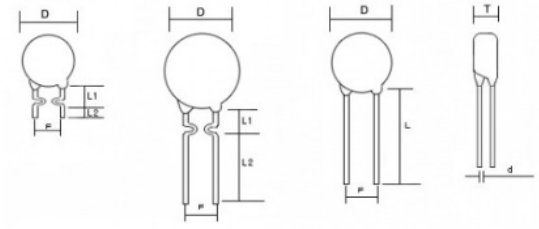
Small size, high power, reliable surge current protection.
High material constant (B value),
Low residual resistance
High steady state current, long lasting, high reliability
Convenient for PCB installation, wide operating range

Application

Can be installed into the power circuits of:
High power switching power supplies, Power conversion, UPS power.
High power battery charger, electric vehicle battery charger.
High power LED light, high power electronic energy saving lamps and other lamps.

Material:	Synthetic Film	Power Characteristics:	Medium Power
Allow Tolerance:	±10(%)	Shape:	Flat Sheet
Temperature Coefficient:	NTC		
Frequency Characteristics:	Medium Frequency		

2.5D-20 Ptc 10K Ntc Thermistor**Shapec Structure Picture**



MF72 Power NTC Thermistor

The main function of the MF72 series power NTC thermistor is to provide surge current suppression for sensitive electronics. Connecting the MF72 in series with the power supply will limit the current surge that is usually created when turning on. Once the circuit is powered on, the MF72 power NTC thermistor will quickly drop to a very low value, the power dissipation can be ignored and will not affect the normal operating current. Using the MF72 power NTC thermistor is one of the most cost-effective ways to suppress surge current and protect sensitive electronics from damage.

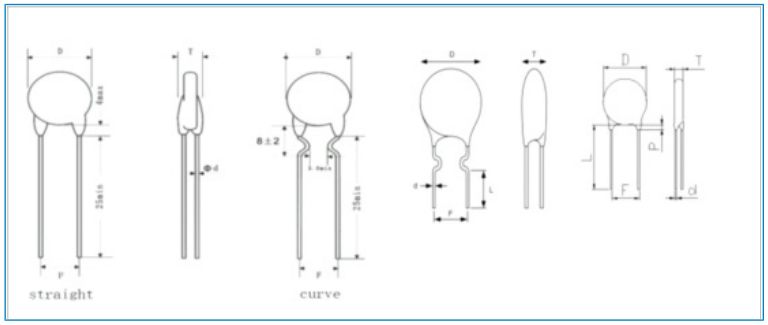
Applications:

• Can be installed in power circuits of:
• Power supplies and inverters
• Uninterruptible power supplies
• Energy-saving lamps
• Electronic ballasts
• Filament protection for various lamps
• Some types of heaters
• For higher power circuits compared to MF73 high power NTC thermistor

Product Features:

• Small size and fast response
• High power handling capability and long-term stability and reliability
• Fast response to surge current
• High material constant (B value)
• Low residual resistance
• Wide operating temperature range -55 to + 200C
• R25 tolerance of ±20%

Specifications and dimensions:



Specifications:

DMAX	Dmax	Tmax	d	F1	F2	Straight Leads	Bend Leads	
			±0.05	±1	±1.5	Lmin	Lmin	L2±2
MF72□D5	7	5	0.6 / 0.45	5 / 2.5	3	25	17/5.0	8/5.0
MF72□D7	9	5	0.6	5	3	25	17/5.0	8/5.0
MF72□D9	11	5.5	0.8 / 0.6	7.5 / 5	5/3	25	17/5.0	8/5.0
MF72□D11	13	5.5	0.8	7.5 / 5	5/3	25	17/5.0	8/5.0
MF72□D13	15.5	6	0.8	7.5	5	25	17/5.0	8/5.0

MF72□D15	17.5	6	0.8	10 / 7.5	5	25	17/5.0	8/5.0
MF72□D20	22.5	7	1	10 / 7.5	/	25	/	/
MF72□D25	27.5	8	1	10 / 7.5	/	25	/	/

Main technical parameters:

D-5 NTC Thermistor

Part Number MF72 NTC	R25 (Ω)	Max steady-state current(A)	Approximate resistance value at maximum current Ω)	Dissipation coefficient approx. (MW /°C)	Thermal time constant approx. (S)	Operating temperature (°C)	UL
3D-5	3	1.3	0.177	7	16	-40 + 150	
5D-5	5	1	0.353	7	16	-40 + 150	√
10D-5	10	0.7	0.771	7	16	-40 + 150	√
20D-5	20	0.5	1.154	6	17	-40 + 150	
60D-5	60	0.3	1.878	6	17	-40 + 150	
200D-5	200	0.1	18.7	5	17	-40 + 150	√

D-7 NTC Thermistor

Part Number MF72 NTC	R25 (Ω)	Max steady-state current(A)	Approximate resistance value at maximum current Ω)	Dissipation coefficient approx. (MW /°C)	Thermal time constant approx. (S)	Operating temperature (°C)	UL
2.5D-7	2.5	3	0.132	11	27	-40 + 150	
3D-7	3	2.5	0.145	11	27	-40 + 150	
5D-7	5	2	0.283	9	23	-40 + 150	√
8D-7	8	1	0.539	9	28	-40 + 150	√
10D-7	10	1	0.616	9	23	-40 + 150	√
12D-7	12	1	0.816	9	23	-40 + 150	
16D-7	16	0.7	1.003	8	23	-40 + 150	√
22D-7	22	0.6	1.108	8	23	-40 + 150	√
33D-7	33	0.5	1.485	8	23	-40 + 150	√
200D-7	200	0.2	11.65	7	21	-40 + 150	√

D-9 NTC Thermistor

Part Number MF72 NTC	R25 (Ω)	Max steady-state current(A)	Approximate resistance value at maximum current Ω)	Dissipation coefficient approx. (MW /°C)	Thermal time constant approx. (S)	Operating temperature (°C)	UL
1.5D-9	1.5	5	0.3	11	36	-40 + 170	
2.5D-9	2.5	4.5	0.06	11	36	-40 + 170	
3D-9	3	4	0.12	11	35	-40 + 170	√
4D-9	4	3	0.19	11	35	-40 + 170	√
5D-9	5	3	0.21	11	34	-40 + 170	√
6D-9	6	2	0.315	11	34	-40 + 170	√
8D-9	8	2	0.4	11	32	-40 + 170	√

10D-9	10	2	0.458	11	32	-40 + 170	√
12D-9	12	1	0.652	11	32	-40 + 170	√
16D-9	16	1	0.802	11	31	-40 + 170	√
20D-9	20	1	0.864	11	30	-40 + 170	√
22D-9	22	1	0.95	11	30	-40 + 170	√
30D-9	30	1	1.022	11	30	-40 + 170	√
33D-9	33	1	1.124	11	30	-40 + 170	√
50D-9	50	1	1.252	11	30	-40 + 170	√
100D-9	100	0.7	1.356	11	28	-40 + 170	
200D-9	200	0.5	1.485	10	28	-40 + 170	
400D-9	400	0.2	1.652	9	25	-40 + 170	

D-11 NTC Thermistor

Part Number MF72 NTC	R25 (Ω)	Max steady-state current(A)	Approximate resistance value at maximum current Ω)	Dissipation coefficient approx. (MW /°C)	Thermal time constant approx. (S)	Operating temperature (°C)	UL
1D-11	1	5.5	0.07	13	46	-40 + 170	
1.5D-11	1.5	5.5	0.085	13	46	-40 + 170	
2.5D-11	2.5	5	0.095	13	43	-40 + 170	√
3D-11	3	5	0.1	13	43	-40 + 170	√
4D-11	4	4	0.15	13	44	-40 + 170	√
5D-11	5	4	0.156	13	45	-40 + 170	√
6D-11	6	3	0.24	13	45	-40 + 170	√
8D-11	8	3	0.255	14	47	-40 + 170	√
10D-11	10	3	0.275	14	47	-40 + 170	√
12D-11	12	2	0.462	14	48	-40 + 170	√
16D-11	16	2	0.47	14	50	-40 + 170	√
20D-11	20	2	0.512	15	52	-40 + 170	√
22D-11	22	2	0.563	15	52	-40 + 170	√
30D-11	30	1.5	0.667	15	52	-40 + 170	√
33D-11	33	1.5	0.734	15	52	-40 + 170	√
50D-11	50	1.5	1.021	15	52	-40 + 170	√
60D-11	60	1.5	1.215	15	52	-40 + 170	√
80D-11	80	1.2	1.656	15	52	-40 + 170	√

D-13 NTC Thermistor

Part Number MF72 NTC	R25 (Ω)	Max steady-state current(A)	Approximate resistance value at maximum current Ω)	Dissipation coefficient approx. (MW /°C)	Thermal time constant approx. (S)	Operating temperature (°C)	UL
1.3D-13	1.3	7	0.062	13	60	-40 + 200	√

1.5D-13	1.5	7	0.073	13	60	40 + 200	√
2.5D-13	2.5	6	0.088	13	60	40 + 200	√
3D-13	3	6	0.092	14	60	40 + 200	√
4D-13	4	5	0.12	15	67	40 + 200	√
5D-13	5	5	0.125	15	68	40 + 200	√
6D-13	6	4	0.17	15	65	40 + 200	√
7D-13	7	4	0.188	15	65	40 + 200	√
8D-13	8	4	0.194	15	60	40 + 200	√
10D-13	10	4	0.206	15	65	40 + 200	√
12D-13	12	3	0.316	16	65	40 + 200	√
15D-13	15	3	0.335	16	60	40 + 200	√
16D-13	16	3	0.338	16	60	40 + 200	√
20D-13	20	3	0.372	16	65	40 + 200	√
30D-13	30	2.5	0.517	16	65	40 + 200	√
47D-13	47	2	0.81	17	65	40 + 200	√
120D-13	120	1.2	2.124	17	65	40 + 200	√

D-15 NTC Thermistor

Part Number MF72 NTC	R25 (Ω)	Max steady-state current(A)	Approximate resistance value at maximum current Ω)	Dissipation coefficient approx. (MW /°C)	Thermal time constant approx. (S)	Operating temperature (°C)	UL
1.3D-15	1.3	8	0.048	18	68	-40 + 200	√
1.5D-15	1.5	8	0.052	18	69	-40 + 200	√
2.5D-15	2.5	7	0.065	18	76	-40 + 200	√
3D-15	3	7	0.075	18	76	-40 + 200	√
5D-15	5	6	0.112	20	76	-40 + 200	√
6D-15	6	5	0.155	20	80	-40 + 200	√
7D-15	7	5	0.173	20	80	-40 + 200	√
8D-15	8	5	0.178	20	80	-40 + 200	√
10D-15	10	5	0.18	20	75	-40 + 200	√
12D-15	12	4	0.25	20	75	-40 + 200	√
15D-15	15	4	0.268	21	85	-40 + 200	√
16D-15	16	1	0.276	21	70	-40 + 200	√
20D-15	20	4	0.288	21	86	-40 + 200	√
30D-15	30	3.5	0.438	21	75	-40 + 200	√
47D-15	47	3	0.68	21	86	-40 + 200	√
120D-15	120	1.8	1.652	22	87	-40 + 200	√
220D-15	220	1	2.0358	24	90	-40 + 20	

D-20 NTC Thermistor

Part Number MF72 NTC	R25 (Ω)	Max steady-state current(A)	Approximate resistance value at maximum current Ω)	Dissipation coefficient approx. (MW /℃)	Thermal time constant approx. (S)	Operating temperature (°C)	UL
0.7D-20	7	11	0.018	27	89	-40 + 200	√
1D-20	1	10	0.023	27	89	-40 + 200	
1.3D-20	1.3	9	0.037	27	88	-40 + 200	√
3D-20	3	8	0.055	25	88	-40 + 200	√
5D-20	5	7	0.087	25	87	-40 + 200	√
6D-20	6	6	0.113	25	103	-40 + 200	√
8D-20	8	6	0.142	25	105	-40 + 200	√
10D-20	10	6	0.162	24	102	-40 + 200	√
12D-20	12	5	0.195	24	100	-40 + 200	√
16D-20	16	5	0.212	24	100	-40 + 200	√
20D-20	20	4.5	0.345	23	115	-40 + 200	
30D-20	30	4	0.492	23	115	-40 + 200	
47D-20	47	3.5	0.675	23	120	-40 + 200	

D-25 NTC Thermistor

Part Number MF72 NTC	R25 (Ω)	Max steady-state current(A)	Approximate resistance value at maximum current Ω)	Dissipation coefficient approx. (MW /℃)	Thermal time constant approx. (S)	Operating temperature (°C)	UL
0.7D-25	0.7	12	0.014	30	120	-40 + 200	
1.5D-25	1.5	10	0.027	30	121	-40 + 200	
3D-25	3	9	0.044	32	124	-40 + 200	
5D-25	5	8	0.07	32	125	-40 + 200	
8D-25	8	7	0.114	33	125	-40 + 200	
10D-25	10	7	0.13	32	127	-40 + 200	
12D-25	12	6	0.156	32	126	-40 + 200	
16D-25	16	6	0.16	35	126	-40 + 200	
20D-25	20	4.5	0.184	35	126	-40 + 200	

Note: Multiple resistance values and pin types can be customized on demand.

What is an inrush current suppression power type NTC thermistor

A power NTC thermistor can be a cost-effective device for limiting the amount of inrush current in a switching power supply or other equipment when power is first applied. A power NTC thermistor limits inrush current by acting as a power resistor that drops from a high cold resistance to a low hot resistance when heated by the current flowing through it.

The inrush current limiter supplies the NTC thermistor protection circuit with unnecessarily high current, suppressing high inrush current surges while its resistance remains negligible during continuous operation. Due to its low resistance in the operating state, power thermistors dissipate much less power than fixed resistors commonly used in this application.

Application of Inrush Current Suppression Power Type NTC Thermistor

Limiting inrush current, suitable for protection of switching power supplies, UPS power supplies, transformers, motors, various electric heating appliances, energy-saving lamps, ballasts, various power circuits, amplifiers, color displays, monitors, color TVs, filament protection, etc.

Power thermistor elements can also be used for soft starting of motors, for example, in vacuum cleaners with a continuous current of up to 20 A.

Inrush current suppression power type NTC thermistor advantages:

· Low-cost solid-state device for suppressing inrush current.

· Minimizes line current distortion and radio noise.

· Protects switches, rectifier diodes and smoothing capacitors from premature failure.
· Prevents false fuse blowing.

Inrush current suppression power type NTC thermistor features:

· Resin coated disc thermistor with non-insulated leads.
· Suitable for AC and DC circuits up to 265 V (rms).
· Wide range of resistances, currents and sizes.
· Excellent mechanical strength.
· Suitable for PCB mounting.

Several factors to consider when selecting an inrush current suppression power NTC thermistor

1) Maximum operating current > actual operating current in the power circuit
2) At 25°C
Rated zero power resistance, E: loop voltage, Im: surge current
For conversion power, recovery power, switching power, UPS power, Im = 100 times the operating current For filaments, heaters, Im = 30 times the operating current
3) The larger the B value, the smaller the residual resistance and the lower the operating temperature.
4) Generally speaking, the larger the time constant and dissipation coefficient, the larger the NTC thermal capacity, and the stronger the surge current suppression capability of the NTC thermistor.

Inrush Current Suppression Power Type NTC Thermistor Application Notes

1) For inrush current limiting, the NTC thermistor must be connected in series with the load circuit. Several inrush current limiters can also be connected in series for higher damping. Inrush current limiters must not be connected in parallel.
2) Generally, inrush current limiters need time to return to a cold state, where they can provide adequate inrush current limiting due to their high resistance. The cooling time depends on the ambient conditions.
3) It should be taken into account that the surrounding area of the NTC thermistor may become hot. Make sure that adjacent components are kept at a sufficient distance from the thermistor to ensure a proper cooling time for the thermistor.
4) Make sure that the design operating temperature of the adjacent materials is comparable to the surface temperature of the thermistor. Make sure that the surrounding components and materials can withstand this temperature.
5) Ensure that the thermistor is adequately ventilated to avoid overheating.
6) Avoid contamination of the thermistor surface.
7) Avoid contact of the NTC thermistor with any liquids and solvents. M

Because the thermistor is basically customized products, the price of goods is not the original price, the price is subject to the formal quotation.	
Features	RoHS compliant
	Halogen-Free (HF) series are available
	Body size: Φ5mm
	Radial lead resin coated
	Operating temperature range: -30℃~+125℃
	Wide resistance range
	Cost effective
Recommended Applications	Home appliances;Automotive electronics; Computers;Switch mode power supplies;Adapters
Storage Conditions	Storage Temperature: -10℃~+40℃
	Relative Humidity: ≦75%RH
	Keep away from corrosive atmosphere and sunlight.
Period of Storage	1 year

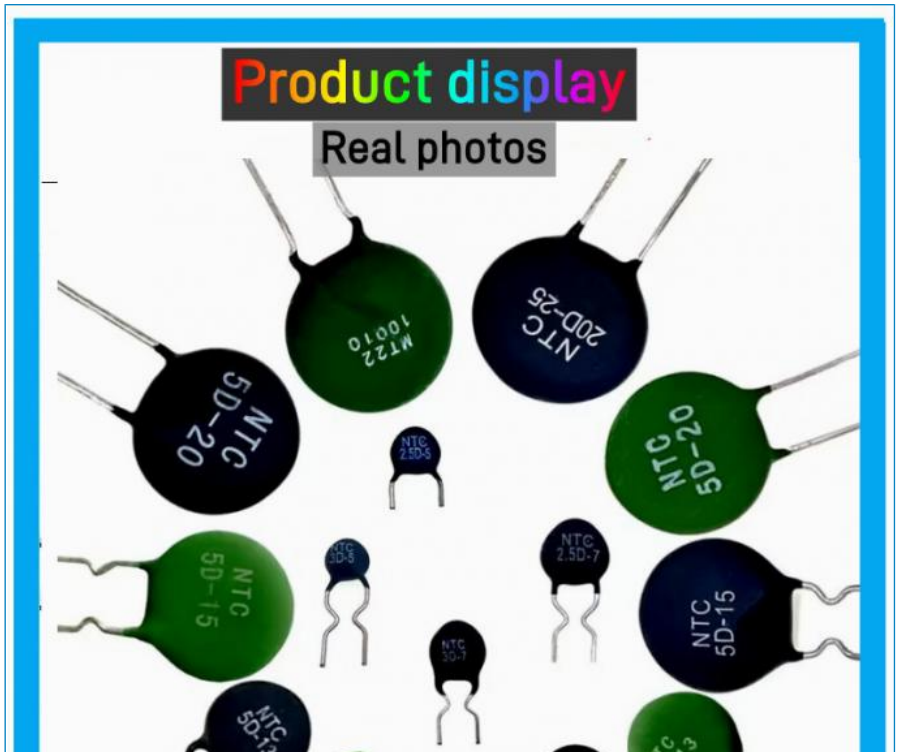
Product parameters

P/N	R@25°C	Tolerance(%)	Beta Value	Tolerance(%)
MF11-050	5		2400	
MF11-100	10		2800	
MF11-150	15		2800	
MF11-200	20		2800	
MF11-220	22		2800	
MF11-270	27		3000	
MF11-330	33		3000	
MF11-390	39		3000	

MF11-470	47		3100	
MF11-500	50		3100	
MF11-680	68		3100	
MF11-820	82		3100	
MF11-101	100		3200	
MF11-121	120		3200	
MF11-151	150		3200	
MF11-201	200		3200	
MF11-221	220		3500	
MF11-271	270		3500	
MF11-331	330		3500	
MF11-391	390		3500	
MF11-471	470		3500	
MF11-501	500		3500	
MF11-561	560		3500	
MF11-681	680		3800	
MF11-821	820		3800	
MF11-102	1000		3800	
MF11-122	1200	±5 ±10 ±20	3800	±5 ±10
MF11-152	1500		3800	
MF11-202	2000		4000	
MF11-222	2200		4000	
MF11-272	2700		4000	
MF11-302	3000		4000	
MF11-332	3300		4000	
MF11-392	3900		4000	
MF11-472	4700		4050	
MF11-502	5000		4050	
MF11-562	5600		4050	
MF11-682	6800		4050	
MF11-822	8200		4050	
MF11-103	10000		4050	
MF11-123	12000		4050	
MF11-153	15000		4150	
MF11-203	20000		4300	
MF11-303	30000		4300	
MF11-473	47000		4300	
MF11-503	50000		4300	

MF11-683	68000		4300	
MF11-104	100000		4500	
MF11-124	120000		4700	
MF11-154	150000		4700	
MF11-204	200000		4700	
MF11-304	300000		4700	
MF11-504	500000		4800	
MF11-105	1000000		4900	

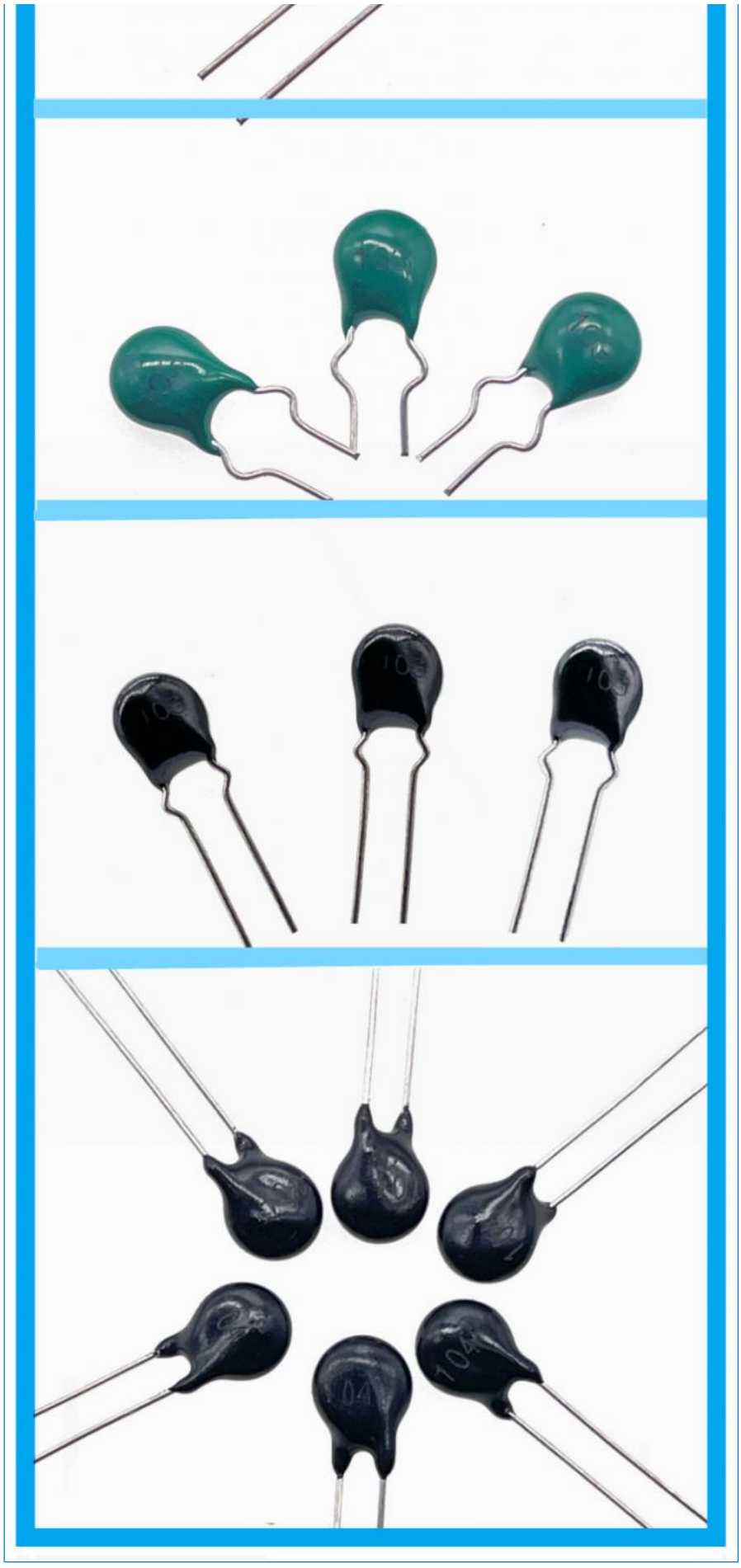
Negative temperature coefficient thermistor, also known as NTC thermistor, is a kind of sensor resistance whose resistance value decreases with the increase of temperature. Widely used in various electronic components, such as temperature sensors, resettable fuses and self-adjusting heaters, etc.




NTC
5D-11
NTC
5D-9
NTC
5D-11


NTC
6.8D-25
6.8D-25


Product display
Real photos


103
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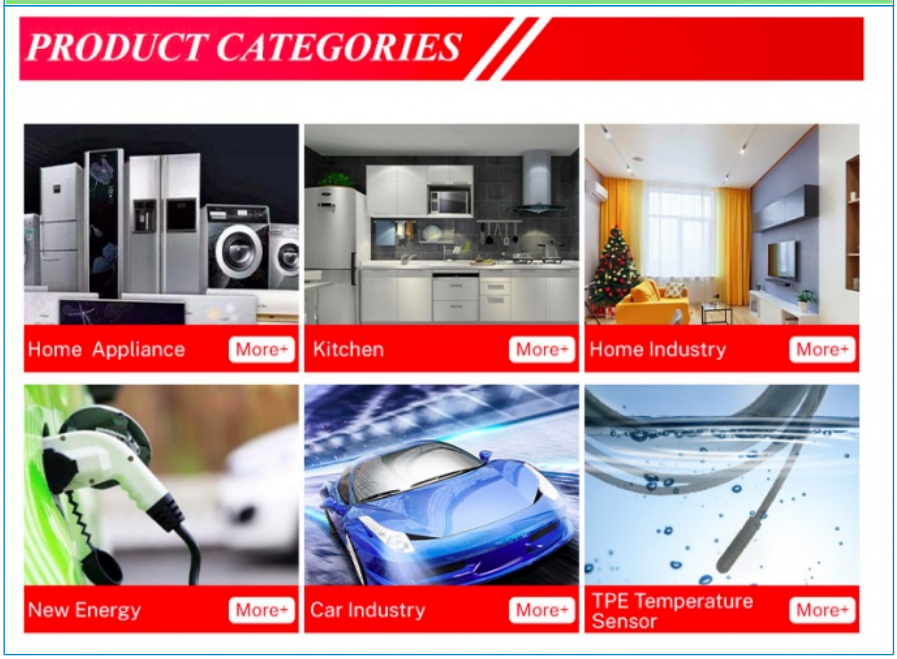
Dongguan Linkun Electronic Technology Co., Ltd.
High-quality, high-performance temperature measuring NTC thermistor is the heart and core of NTC temperature sensor
NTC MF72 series
NTC MF73 series
NTC MF51 series
NTC MF55 series
NTC MF11 series
PTC heating chip series
NTC MF58 series
NTC MF59 series
Intelligent composite PTC series
PTC thermistor
NTC-MF5A series
NTC-MF52 series
SMD paste NTC series
Sensor series
NTC-MF5Q series
NTC-MF5P series
The MF58 series products are the first in China to pass the 100,000-time durability test in the UL standard.


PRODUCT CATEGORIES
Home Appliance More+
Kitchen More+
Home Industry More+
New Energy More+
Car Industry More+
TPE Temperature Sensor More+

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