# High Power NTC Thermistor MF73 Series R25(Ω) 0.2~20 Ohms 80A For Switching Power Supply

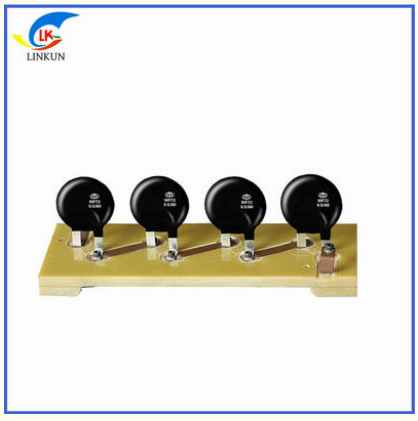
Our Product Introduction

## Basic Information

- Place of Origin: China
- Brand Name: lin kun
- Certification: ROHS,UL
- Model Number: MF73 NTC thermistor
- Minimum Order Quantity: 5000 PCS
- Price: 0.045 USD/ PCS
- Packaging Details: Bulk,500pcs per polybag
- Delivery Time: 7 workdays
- Payment Terms: T/T
- Supply Ability: 20,000,000PCS per week


## Product Specification

- Product Name: MF73 Super Power NTC Thermistor
- Resistance: R25 =0.2~20 Ohms
- Insulator: Ceramic
- Max Power Dissipation: 30/45/55W
- Thermal Time Constant: 350/480/650sec
- Dissipation Factor: 55/70/90mW/C
- Operating Temperature Range: -55°C To 125°C
- High Light: High Power NTC Thermistor MF73 Series R25(Ω): 0.2~20 Ohms Imax A 80A 80A For
- Highlight: **80A NTC Thermistor**, **High Power NTC Thermistor**, **MF73 Series NTC Thermistor**




## More Images

## Product Description

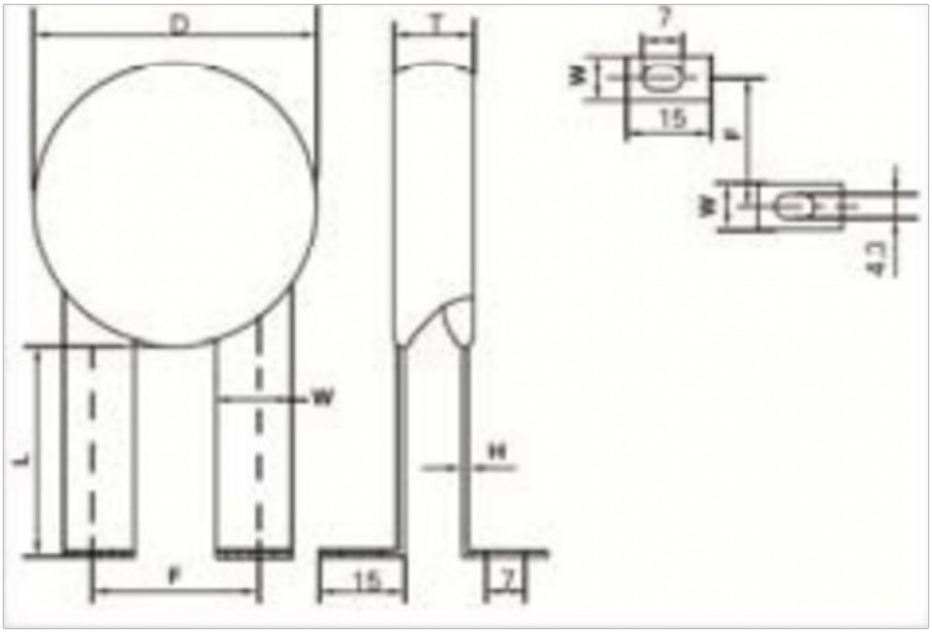
### Product Description:

**High-power NTC thermistor MF73 series**
R25(Ω): 0.2~20 Imax(A): 80A
[Product features] Reliable structure, easy installation, strong surge current suppression capability, large energy absorption
[Product use] Various high-power switching power supplies, UPS power supplies, conversion power supplies

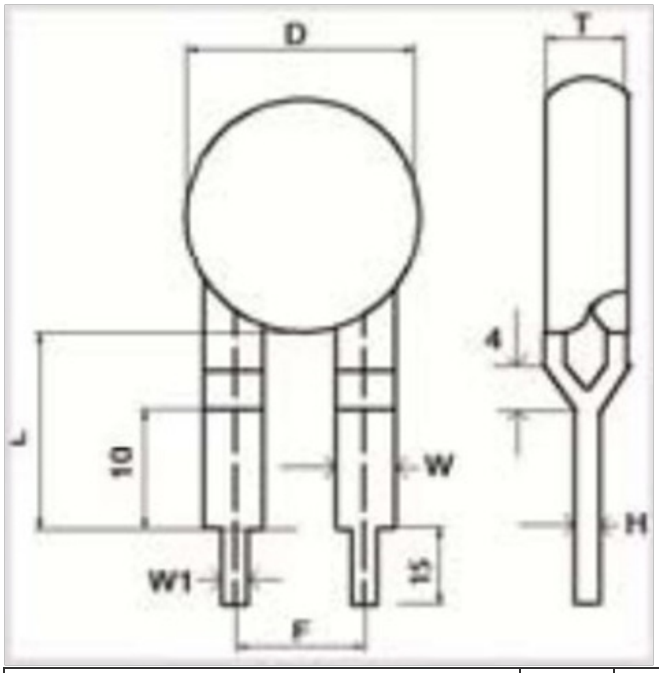
**1.Features:**

- ●Reliable structure, easy to install.
- ● Strong surge current suppression capability, large energy absorption.
- ● Large steady-state current.
- ● Long life and high reliability.

**2.Dimension Of The Ultra Big Power NTC Thermistor MF73**




| Body size | Φ40 | Φ45 | Φ50 |
|---|---|---|---|
| (Dmax)Diameter | 45 | 50 | 55 |
| (Tmax)/Thickness | 18 | 18 | 18 |
| (F±1.5)/Pitch | 22.5 | 22.5 | 22.5 |
| (L±2)/Lead length | 20 | 20 | 20 |
| (W±0.2)/Lead width | 8 | 8 | 8 |
| Lead thickness(H±0.1) | 1.0 | 1.0 | 1.0 |




| Body size | Φ40 | Φ45 | Φ50 |
|---|---|---|---|
| (Dmax)/Diameter | 45 | 50 | 55 |
| (Tmax)/Thickness | 18 | 18 | 18 |
| (F±1.5)/Pitch | 22.5 | 22.5 | 22.5 |
| (L±2)/Lead length | 30 | 30 | 30 |
| (W±0.2)/Lead width | 10 | 10 | 10 |
| Lead thickness(H±0.1) | 1.0 | 1.0 | 1.0 |
| Width of lower lead (W1±0.2) | 6 | 6 | 6 |

**3.Specification Of The Ultra Big Power NTC Thermistor MF73 Body diameter Φ40mm**

| P/N | R25±20% (Ω) | Thermal sensitive index B±10%(K) | Max steady state current Imax(A) | Approx R of Max current Rmax(Ω) | Max power dissipation Pmax(W) | Thermal time constant (mW/C) | Thermal time constant (s) | Max impulse capacitance (uF)240VAC |
|---|---|---|---|---|---|---|---|---|
| MF73-0.2/50 | 0.2 | 2600 | 50 | 0.007 | 25 | ≥55 | ≤350 | 8000 |
| MF73-0.5/40 | 0.5 | 2600 | 40 | 0.008 | | | | 6800 |
| MF73-3/28 | 3 | 2800 | 28 | 0.02 | | | | 6800 |
| MF73-5/25 | 5 | 3000 | 25 | 0.028 | | | | 4700 |
| MF73-8/20 | 8 | 3200 | 20 | 0.034 | | | | 3300 |
| MF73-10/19 | 10 | 3200 | 19 | 0.038 | | | | 3300 |

**4.Body diameter Φ45mm**

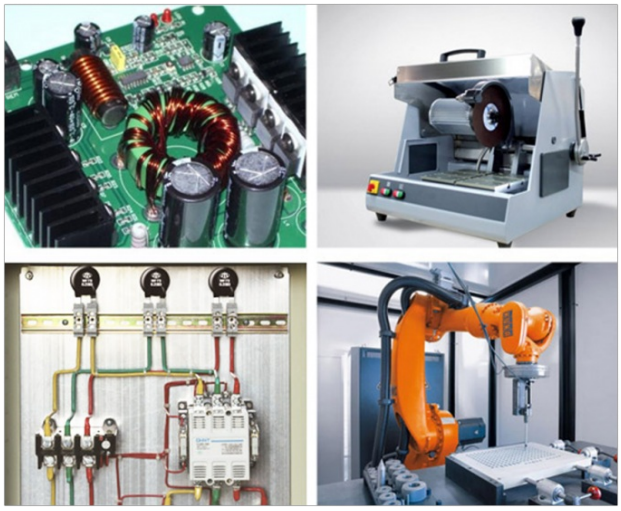
| P/N | R25±20% (Ω) | Thermal sensitive index B±10%(K) | Max steady state current Imax(A) | Approx R of Max current Rmax(Ω) | Max power dissipation Pmax(W) | Thermal time constant (mW/C) | Thermal time constant (s) | Max impulse capacitance (uF)240VAC |
|---|---|---|---|---|---|---|---|---|
| MF73-0.2/65 | 0.2 | 2600 | 65 | 0.006 | 30 | ≥70 | ≤480 | 11500 |
| MF73-0.5/50 | 0.5 | 2600 | 50 | 0.007 | | | | 8000 |
| MF73-2/40 | 2 | 2600 | 40 | 0.012 | | | | 8000 |
| MF73-5/30 | 5 | 3000 | 30 | 0.025 | | | | 6800 |
| MF73-10/24 | 10 | 3200 | 24 | 0.032 | | | | 4700 |

**Body diameter Φ50mm**

| P/N | R25±20% (Ω) | Thermal sensitive index B±10% (K) | Max steady state current Imax(A) | Approx R of Max current Rmax(Ω) | Max power dissipation Pmax(W) | Thermal time constant (mW/C) | Thermal time constant (s) | Max impulse capacitance (uF)240VAC |
|---|---|---|---|---|---|---|---|---|
| MF73-0.2/80 | 0.2 | 2600 | 80 | 0.004 | | | | 15000 |
| MF73-0.5/60 | 0.5 | 2600 | 60 | 0.006 | | | | 11500 |
| MF73-1/56 | 1 | 2600 | 56 | 0.008 | | | | 11500 |
| MF73-3/40 | 3 | 2800 | 40 | 0.015 | 36 | ≥90 | ≤650 | 11500 |
| MF73-5/35 | 5 | 3000 | 35 | 0.022 | | | | 8000 |
| MF73-6.8/32 | 6.8 | 3000 | 32 | 0.025 | | | | 8000 |
| MF73-10/27 | 10 | 3200 | 27 | 0.03 | | | | 6800 |

**5.Application Scope**

Various high-power switching power supplies, UPS power supplies, conversion power supplies.
Electric vehicle chargers, charging piles.
Motor drive devices, high-power servo motor drivers, logic controllers.
High-power plasma welding machines, cutting machines, high-power lighting fixtures.
Nuclear magnetic resonance equipment, high-power audio amplifiers, high-power toroidal transformers.
Solar panel arrays for large-capacity power inverters.
Industrial robots driven by high-voltage power supplies, low-voltage intelligent electrical cabinets.



Principle of power NTC thermistor!
NTC (Negative Temperature Coefficient) thermistors are thermistors with negative temperature coefficients and their resistance decreases exponentially as the temperature rises. They are made of metal oxides such as manganese (Mn), cobalt (Co), nickel (Ni), iron (Fe), copper (Cu) and aluminum (Al) using ceramic technology.

When switching power supplies, motors, transformers and heaters are powered on, instantaneous surge currents will be generated. The greater the power of such equipment, the higher the surge current. Large surge currents can cause circuit breaker damage, energy receiver fuses, protection device failures and equipment malfunctions.

Connecting one or more power-type NTC thermistors in series in the power supply circuit is the most effective, economical and simplest measure to suppress startup surge currents and protect electronic components from damage or failure.

The thermal delay effect caused by the resistance value and thermal inertia of the power type NTC thermistor body at room temperature can effectively suppress the peak surge current (which can reach tens or even hundreds of times the normal working current) in the power supply circuit (especially the high-voltage large-capacitance filter circuit) when the power is turned on. After the surge current is suppressed, the self-heating effect under the continuous action of the current (including the surge current and the normal working current of the circuit) passing through it causes the temperature of the resistor body to rise. The resistance value of the power type NTC thermistor will drop to a very small level, the voltage drop generated is low, and the power consumed is very small, which will not affect the normal working current.

The figure below shows the waveform of the surge current when there is a surge current suppression circuit with or without a power type NTC thermistor.

The principle of the power type NTC thermistor!
Since power NTC thermistors are used as surge current suppression devices, they have the advantages of significant effects, simple circuits, low power consumption, high reliability, and low cost, and are therefore widely used in conversion power supplies, switching power supplies, UPS power supplies, transformers, motors, smart electric cabinets, electric heaters, electronic energy-saving lamps, electronic ballasts, displays, incandescent lamps, and other lighting fixtures.

Principle of power NTC thermistors!
With the development of electronic technology, the requirements for power NTC thermistors that suppress surge currents are small size, high power, low power consumption, and high reliability. The development direction of power NTC thermistors is: 1. Under the same resistance value, steady-state current, and surge impact conditions, the volume is smaller; 2. Under the same resistance value and volume, the steady-state current is larger, and it has a stronger ability to withstand current impact. 3. Smaller residual resistance.

The power NTC thermistor series products have all passed UL, CUL, TUV, and CQC safety certifications. The minimum zero-power resistance can be below 1Ω, the steady-state current can reach 80A, and the maximum chip diameter is 50mm.

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