

MF52A 100K 3950 type NTC thermistor

NTC) thermistor is an electronic component whose resistance value decreases as the temperature increases.

The MF52 series NTC thermistor is coated with epoxy resin. Through materials and advanced manufacturing processes, it achieves the product features of small size and fast response. It also has precise tolerances and long-term stable and reliable performance. It is the NTC thermistor with the widest range of applications and the most common

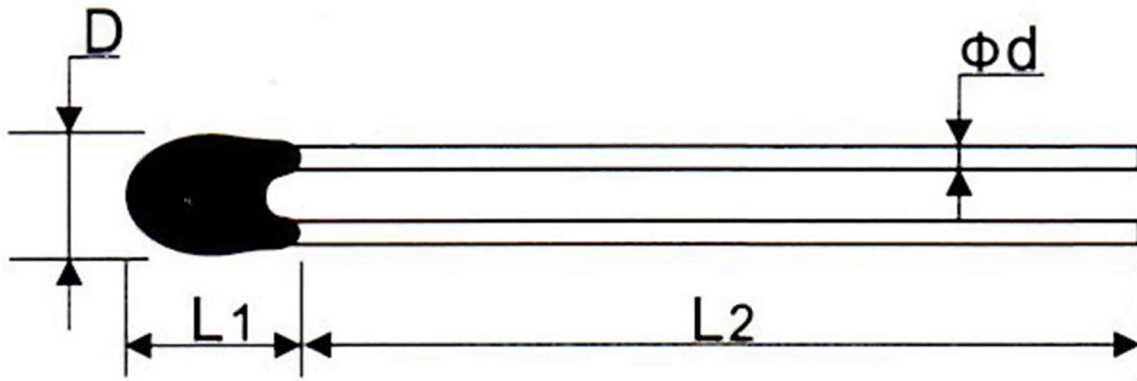
MF52A



MF52A NTC thermistor features:

1. High measurement accuracy
2. Tight tolerances on resistance and beta values.
3. Fast response and small size.
4. Can run stably for a long time.
5. The rated resistance of 25°C can be 1kΩ~1000kΩ.
6. Common resistance values at 25°C Are: 1k ohm, 2k ohm, 2.252 ohm, 3k ohm, 4.7k ohm, 5k ohm, 6.8k ohm, 10k ohm, 15k ohm, 20k ohm, 30k ohm, 40k ohm, 47k ohm, 50k Ohm, 100k Ohm, 150k Ohm, 1000k Ohm, etc.
7. Dissipation factor: $\geq 3.0\text{mW/C}$ in still air.
8. Thermal time constant: ≤ 12 seconds in still air.
9. Operating temperature range: $-45^{\circ}\text{C} - +125^{\circ}\text{C}$.

MF52A NTC thermostor size: (mm)



常规尺寸表 Standard Dimension

Dmax	L ₁ max	L ₂ min	Φd±0.05	F±0.5
2.8	3.2	25	0.4	2.0

Unit:mm

MF52A NTC thermistor application range:

Air conditioning equipment, heating equipment, medical equipment, temperature control instruments, electronic gifts, electronic temperature and humidity meters, automotive temperature measurement, electronic perpetual calendar, rechargeable battery packs and chargers.

MF52A epoxy head temperature measurement NTC thermostat reliability data

test	standard	Test Conditions	ΔR25/ R25 (typ.)	Remark
Low temperature storage	IEC 60068-2-1	Storage temperature is low. Temperature: -40 °C Time: 1,000 hours	≤2%	no obvious harm

Store in dry heat	IEC 60068-2-2	Storage temperature is higher. Temperature: 100 ° C Time: Thousand hours	≤2%	no obvious harm
Store in humid heat, steady state (humidity test)	IEC 60068-2-3	Temperature: 40 °C, Diameter: C,	≤2%	no obvious harm
		Humidity: 90%-95%RH, Time: 1000 hours		
Fast temperature cycling	IEC 60068-2-14	1. -40°C/30 minutes	≤2%	no obvious harm
		2. 30°C/5 minutes		
		3. 10°C/30 minutes		
		4. 30°C/5 minutes. Number of cycles: 5 cycles		

MF52A epoxy head temperature measurement NTC thermistor mechanical test

test	standard	Test conditions and methods	Require
Welding and weldability	IEC60068-2-20	Temperature: 230±5°C, 2-2.5mm away from ceramic body, opening: 2±0.5 seconds.	Terminals should be evenly tinned
	test		
Resistant to welding heat	IEC60068-2-20	Temperature: 260±5°C, 2-2.5mm away from the ceramic body, opening: 10±1 seconds.	No obvious damage, ΔR25/R25≤2%
	Test Tb		
Lead stretch	IEC60068-2-21	Test Ua: force 10N, 10 seconds; Test Ub: bend 90C, force 5N, twice.	no interruption, ΔR25/R25≤2%
	TestU		

MF52A epoxy head temperature measurement NTC thermistor parameter table

Part Number	Resistance@25°C	B value
	R25 (ohms)	(K)
MF52a-102□3950	R25: 1K ohm	B(25/50C): 3950k
MF52a-202□3470	R25: 2K ohm	B(25/50C): 3470k
MF52a-202□3550	R25: 2K ohm	B (25/50°C) : 3550k
MF52a-202□3950	R25: 2K ohm	B (25/50°C) : 3950k
MF52a2252□3935	R25: 2252 ohms	B (25/50°C) : 3935k
MF52a-2.78K□3950	R25: 2.78K ohm	B (25/50°C) : 3950k
MF52a-302□3977 (B25/85)	R25: 3K ohm	B (25/85°C) : 3977k
MF52a-332□3950	R25: 3.3K ohm	B (25/50°C) : 3950k
MF52a-472□3950	R25: 4.7K ohm	B(25/50C): 3950k

MF52a502□3470	R25: 5K ohm	B(25/50C): 3470k
MF52a-502□3950	R25: 5K ohm	B(25/50C): 3950k
MF52a-682□3977 (B25/85)	R25: 6.8K ohm	B(25/85C): 3977k
MF52a-682□4200	R25: 6.8K ohm	B(25/50C): 4200k
MF52a-103□3380	R25: 10K ohm	B(25/50C): 3380k
MF52a-103□3435 (B25/85)	R25: 10K ohm	B(25/85C): 3435k
AMF52-103□3470	R25: 10K ohm	B (25/50°C) : 3470k
MF52a-103□3950	R25: 10K ohm	B(25/50C): 3950k
MF52a-103□3977 (B25/85)	R25: 10K ohm	(B25/85C): 3977k
MF52a-103□4100	R25: 10K ohm	B(25/50C): 4100k
MF52a-153□3950	R25: 15K ohm	B(25/50C): 3950k
MF52a203□3950	R25: 20K ohm	B(25/50C): 3950k
MF52a-233□4200	R25: 23K ohm	B(25/50C): 4200k
MF52a-303□3950	R25: 30K ohm	B(25/50C): 3950k
MF52a-40.27k□3979 (B25/85)	R25: 40.27K ohms	B(25/85C): 3979k
MF52a-473□3950	R25: 47K ohms	B(25/50C): 3950k
MF52a-503□3950	R25: 50K ohm	B(25/50C): 3950k
MF52a-503□3990	R25: 50K ohm	B(25/50C): 3990k
MF52a-503□4050	R25: 50K ohm	B(25/50C): 4050k
MF52a-104□3950	R25: 100K ohm	B(25/50C): 3950k
MF52a-104□3990	R25: 100K ohm	B(25/50C): 3990k
MF52a-104□4200	R25: 100K ohm	B(25/50C): 4200k
MF52a-154□4370 (B25/85)	R25: 150K ohm	B(25/85C): 4370k
AMF52-105□4730	R25: 1000K ohm	B(25/50C): 4730k

The main products include: NTC thermistor, NTC temperature sensor, NTC temperature probe, NTC temperature sensing wire, NTC temperature measuring wire, micro NTC custom design, etc. The products are widely used in household appliances, communications, electricity, medical equipment, and testing instruments., power equipment, industrial electronic equipment and other fields.

All products can be customized according to users' special requirements.

For more details, please refer to our product center