

- ❖ NTC Thermistor Series
- ❖ PTC Thermistor Series
- ❖ Varistor Series
- ❖ Self-resetting fuse series
- ❖ Surface Mount Fuses
- ❖ Temperature sensor series
- ❖ Motor moisture-proof heating belt

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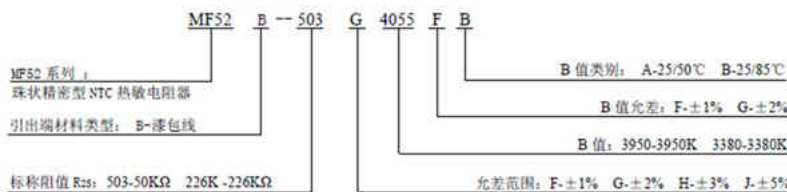
产品名称: MF52 epoxy resin head NTC thermistor

选型指南
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An NTC (Negative Temperature Coefficient) thermistor is a thermistor-sensitive semiconductor resistor whose resistance decreases as temperature increases. Its temperature coefficient of resistance ranges from -2%/K to -6%/K, approximately ten times that of a metal. Changes in the resistance of an NTC thermistor can be caused by changes in ambient temperature or by the heat generated by the flow of current. Its various applications are based on this characteristic. NTC thermistors are constructed from polycrystalline ceramics mixed with oxides. The conductivity mechanism of this material is quite complex.

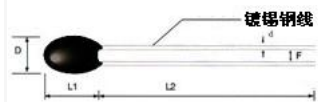
Huaju Electronics is one of the earliest professional manufacturers of NTC thermistors in China. The NTC thermistors produced by the company are widely used in various handheld devices and miniaturized electronic devices, as well as in various temperature measurement and temperature compensation applications. The NTC thermistors produced by the company are inexpensive and of excellent quality, and can completely replace foreign brands such as Murata, TDK, and EPCOS.

1. Product Introduction:
The MF52 bead-type temperature sensing thermistor is a small-volume epoxy resin-encapsulated NTC thermistor manufactured using new materials and processes. It features high precision and fast response.
2. Applications:
• Air conditioning equipment • Heating equipment • Electronic thermometers • Liquid level sensors • Automotive electronics • Electronic calendars • Mobile phone batteries
3. Features:
• High testing accuracy • Small size and fast response speed • Stable operation over long periods • Good interchangeability and consistency
3. Model naming:



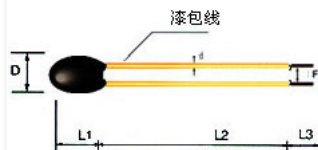
5. External structure and dimensions:

Type A: (Lead wire is tin-plated steel wire)



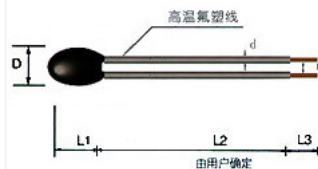
code name	D	L1	L2	d
	max	max	type	±0.05
A0	2.2	4.0	25	0.4
A1	2.8	4.0	25	0.4
A2	3.0	4.0	25	0.45

Type B: (Lead wire is enameled wire)



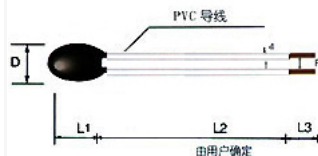
code name	D	L1	L2	d
	max	max	type	±0.05
B	3.0	4.0	80	0.3

Type C: (Lead wire is high-temperature fluoroplastic wire)



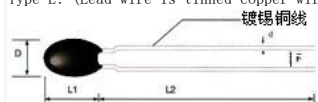
code name	D	L1	L2	L3	d
	max	max	type	±1	±0.05
C	4.0	7.5	80	5	0.5

Type D: (The lead wire is a PVC conductor)



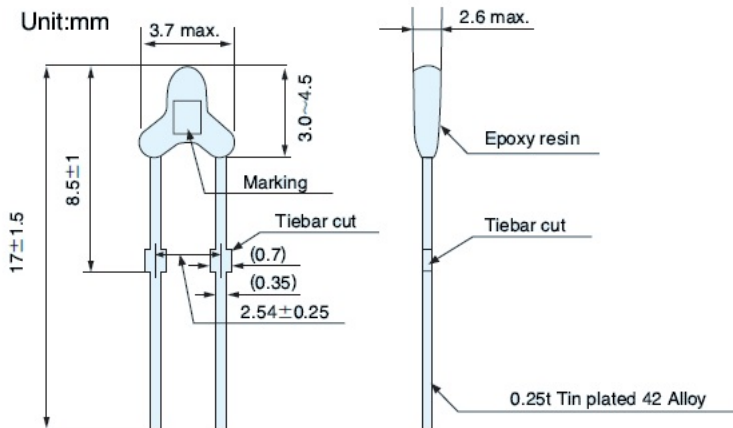
code name	D	L1	L2	L3	d
	max	max	type	±1	±0.05
D	4.0	7.5	80	5	0.32

Type E: (Lead wire is tinned copper wire)



code name	D	L1	L2	d
	max	max	±1.5	max
E	2.5	4.0	25	0.45

Type F: (Lead wire and end cap are both special specifications)



Type G: (Leads are insulated electronic leads)

Lead length less than 25mm can replace the MF52D series



code name	D	L1	L2	L3	d	F
	max	max	max	±1	±0.05	±0.05
G1	2.5	5.0	25	User confirmed	0.3	/
G2	3.5	6.0	45	User confirmed	0.45	/

MF52A	MF52B	MF52C
MF52D	MF52E	MF52F
MF52G		

Product Model	nominal resistance value	B value	Rated power	Dissipation coefficient	Thermal time constant	Operating temperature
	R 25 (KΩ)	A (25/50°C) K B (25/85°C) K	(mw)	(mW/°C)	(S)	(° C)
MF52□-102□3270A	1	3270A	≤50	≥2.0	≤15	-55~+125°C
MF52□-102□3950A	1	3950A		in still air	in still air	

MF52□-152□3950A-S	1.5	3950A
MF52□-202□3380A-J	2	3380A
MF52□-202□3470A-S	2	3470A
MF52□-202□3483A	2	3483A
MF52□-202□3550A-A	2	3350A
MF52□-202□3930A-A	2	3930A
MF52□-202□3950A-A	2	3950A
MF52□-202□4000A	2	4000A
MF52□-212□3560X(25/100)-A	2.1	3560X (25/100)
MF52□-2.252K□3935A-A	2.252	3935A
MF52□-2.55K□3740A	2.55	3740A
MF52□-2.78KK□4170A-A	2.78	4170A
MF52□-302□3950A-S	3	3950A
MF52□-302□4090B-A	3	4090B
MF52□-332□3950A-A	3.3	3950A
MF52□-472□3470A-S	4.7	3470A
MF52□-472□3950A-AS	4.7	3950A
MF52□-502□3270A	5	3270A
MF52□-502□3380A-S	5	3380A
MF52□-502□3470A	5	3470A
MF52□-502□3600A	5	3600A
MF52□-502□3950A	5	3950A
MF52□-682□3977B-A	6.8	3977B
MF52□-682□4200A-A	6.8	4200A
MF52□-802□3780A	8	3780A
MF52□-103□3270A	10	3270A
MF52□-103□3435B	10	3435B
MF52□-103□3450B-A	10	3450B
MF52□-103□3470A	10	3470A
MF52□-103□3600A	10	3600A
MF52□-103□3950A	10	3950A
MF52□-103□3977B-A	10	3977B
MF52□-103□4100A-A	10	4100A
MF52□-153□3680A	15	3680A
MF52□-153□3950A-A	15	3950A
MF52□-153□4100A	15	4100A
MF52□-153□4150A	15	4150A
MF52□-203□3950A	20	3950A
MF52□-203□4150B	20	4150B
MF52□-203□4200A	20	4200A
MF52□-233□3950A	twenty three	3950A
MF52□-233□4200A-A	twenty three	4200A
MF52□-303□3899A	30	3899A
MF52□-303□3950A	30	3950A
MF52□-303□4200A	30	4200A
MF52□-40.27K□3900A	40.27	3900A
MF52□-40.27K□3979B-A	40.27	3979B
MF52□-403□3950A	40	3950A
MF52□-473□3950A	47	3950A
MF52□-473□3990A	47	3990A
MF52□-473□4150A	47	4150A
MF52□-49.12K□3979B-A	49.12	3979B
MF52□-503□3950A	50	3950A
MF52□-503□3990A-A	50	3990A
MF52□-503□4050A-A	50	4050A
MF52□-503□4150A	50	4150A
MF52□-104□3950A	100	3950A
MF52□-104□3990A-A	100	3990A
MF52□-104□4000A	100	400A
MF52□-104□4050A	100	4050A
MF52□-104□4150A	100	4150A
MF52□-104□4200A-A	100	4200A
MF52□-104□4250A	100	4250A
MF52□-104□4450A	100	4450A
MF52□-154□4370B-A	150	4370B
MF52□-154□4500A	150	4500A
MF52□-204□4250A	200	4250A
MF52□-474□4450A	470	4450A
MF52□-105□4700A	1000	4700A
MF52□-105□4730A-A	1000	4730A

Huaju's list of alternatives to Ishizuka

Huaju product models	Ishizuka product models	nominal resistance value	B value		Rated power	Dissipation coefficient	Thermal time constant	Operating temperature
			R 25 (KΩ)	A (25/50°C) K				
MF52F-202E3976EB	202AP-2	2.00	±0.5%	3976B	6	1.2	15	-60~+150°C
MF52F-2.252KE3976EB	232AP-2	2.252		3976B				
MF52F-502E3976EB	502AP-2	5.00		3976B				
MF52F-103E3435EB	103AP-2	10.0		3435B				
MF52F-103E3976EB	103AP-2-A	10.0		3976B				
MF52F-203E3976EB	203AP-2	20.0		3976B				
MF52F-503E4220EB	503AP-2	50.0		4220B				
MF52E-104E4261EB	104AP-2	100		4261B				
MF52E-204E4470B	204AP-2	200		4470B				

Huaju's list of alternatives to Ishizuka 2

Huaju product models	Ishizuka product models	nominal resistance value		B value		Rated power	Dissipation coefficient	Thermal time constant	Operating temperature
		R 25 (K Ω)		A (25/50 $^{\circ}$ C) K	B (25/85 $^{\circ}$ C) K	(mw)	(mW/ $^{\circ}$ C)	(S)	($^{\circ}$ C)
MF52F-102F3100FB	102AT-2	1	$\pm 1\%$	3100B	$\pm 1\%$	10	2	15	-60~+90 $^{\circ}$ C
MF52F-202F3182B	202AT-2	2		3182B					
MF52F-502F3324B	502AT-2	5		3324B					
MF52F-103F3435B	103AT-2	10		3435B					
MF52F-203F4103B	203AT-2	20		4103B					
MF52F-104F4665B	104AT-2	100		4665B					
CWFZS-102F3100B	102AT-11	1		3100B		13	3	75	-50~+90 $^{\circ}$ C
CWFZS-202F3182B	202AT-11	2		3182B					
CWFZS-502F3324B	502AT-11	5		3324B					
CWFZS-103F3435B	103AT-11	10		3435B		10	2	10	-50~+105 $^{\circ}$ C
MF52D1-103F3435B	103AT-4 sharp1	10	3435B	20	4	35			
MF52D2-103F3435B	103AT-4 sharp2	10	3435B	12.5	2.5	15	-50~+110 $^{\circ}$ C		

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