



# CANTHERM

Supplying high-quality bimetal and thermal sensor products.

## MF52 Pearl-Shaped Precision NTC Thermistor for Temperature Measurement

The MF52 series of Pearl-Shaped NTC Thermistors is ethoxyline resin coated. The small size is made possible by new materials and manufacturing methods which provide the benefit of close tolerances and fast response. MF52 thermistors are available with 5 lead styles in standard or custom lengths.



### Application

- Heating, Ventilation & Air Conditioning
- Temperature Regulation and Measurement
- Electronic Thermometers
- Liquid Level Sensing
- Automotive Electronics
- Medical Equipment and Apparatus
- Battery Packs and Portable Electronics

### Characteristics

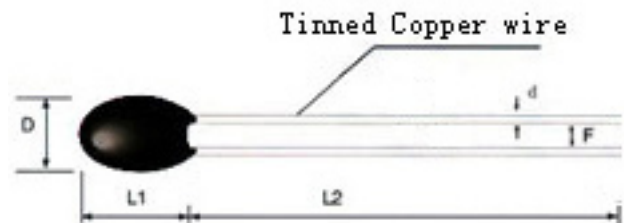
- Small Size and fast response
- Available tolerances:  $\pm 1\%$ ,  $\pm 2\%$ ,  $\pm 3\%$  and  $\pm 5\%$
- Long-term Stability and Reliability
- Excellent Tolerance and Interchangeability
- Available in all popular resistance values
- Dissipation Constant  $\geq 2.0 \text{mW}/^\circ\text{C}$
- Time Constant of  $\leq 7$  seconds in still air
- Available in custom probes
- UL Listed E240991

### Dimensions(mm)

Code	D max	L <sub>1</sub> max	L <sub>2</sub> min	d +/- 0.05	F +/- 0.05
A1	2	3	25	0.3	2.0
A2	3	4	25	0.45	2.5



UL 1434  
(File E240991)



**A: Tin. Ag. nickel plated cu wire**



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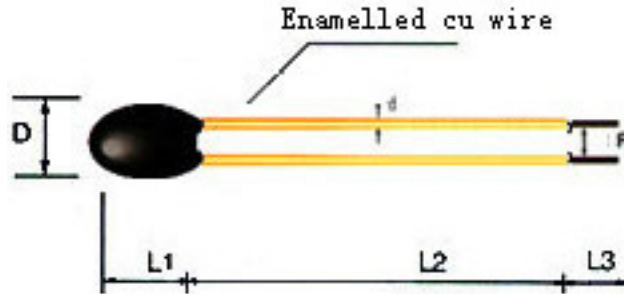
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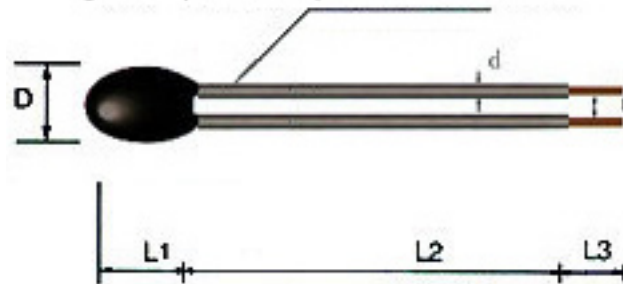
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**B: Enamelled cu wire**

Code	D max	L <sub>1</sub> max	L <sub>2</sub> min	L <sub>3</sub> +/- 1	d +/- 0.05	F +/- 0.05
B1	2	3.5	Customer Specified	5	0.2	2.0
B2	3	4	Customer Specified	5	0.3	2.5

High temp fluorin-plastic insulated cu wire



**C: High temp fluorin-plastic wire**

Code	D max	L <sub>1</sub> max	L <sub>2</sub> min	L <sub>3</sub> +/- 1	d +/- 0.05	F +/- 0.05
C1	2	3.5	Customer Specified	5	0.4	2.0
C2	3	4	Customer Specified	5	0.5	2.5



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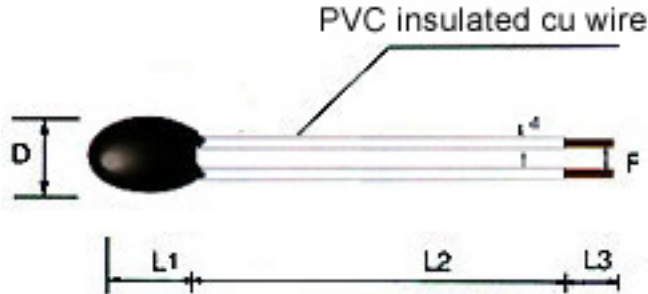
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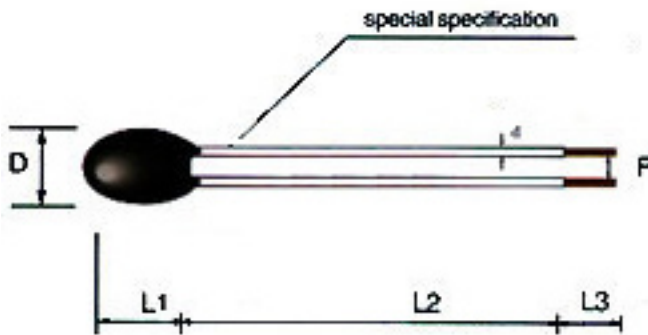
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**D: PVC wire**

Code	D max	L <sub>1</sub> max	L <sub>2</sub> min	L <sub>3</sub> +/-1	d +/- 0.05	F +/- 0.05
D1	2	3.5	Customer Specified	5	0.26	2.5
D2	3	4	Customer Specified	5	0.32	2.5



**E: Lead and head according to specification**

Code	D max	L <sub>1</sub> max	L <sub>2</sub> min	L <sub>3</sub> +/- 1	d +/- 0.05	F +/- 0.05
E1	Customer Specified	Customer Specified	Customer Specified	5	Customer Specified	2.5
E2	Customer Specified	Customer Specified	Customer Specified	5	Customer Specified	2.5



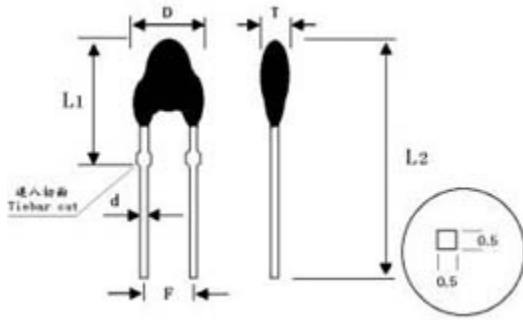
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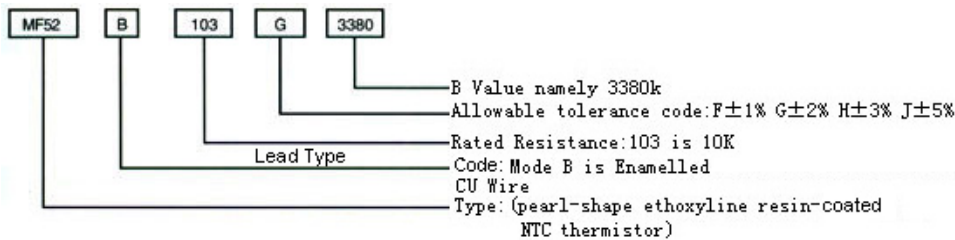
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**F: Tinned Lead-Frame Style**

Code	D max	L1 max	L2 +/- 1.5	d max	F +/- 0.5	Tmax
F	3.8	9.5	17	5.0	2.5	3.5

## Specification



## Main Techno-Parameter

Part No.	Rated Resistance R <sub>25</sub> (KΩ)	B Value (25/50°C) (K)	Rated Power(mw)	Dissi. Coef. (mW/°C)	Thermal time Constant(S)	Operating Temp.(°C)
MF52□□□3100	0.1-20	3100	≤ 50	≥ 2.0 In Still Air	≤ 7 In Still Air	-55° - +125°C
MF52□□□3270	0.2-20	3270				
MF52□□□3380	0.5-50	3380				
MF52□□□3470	0.5-50	3470				
MF52□□□3600	1-100	3600				
MF52□□□3950	5-100	3950				
MF52□□□4000	5-100	4000				
MF52□□□4050	5-200	4050				
MF52□□□4150	10-250	4150				
MF52□□□4300	20-1000	4300				
MF52□□□4500	20-1000	4500				

Remark:

\* B Value (25/50C) error is ±1% for components with rated resistance tolerance of ±1% and ±2% for all others.

Notice:

\* The two ends of the lead wire cannot endure too big pull because of the small size and soldered spot in series of MF52.

\* Solder at least 5mm from the bottom of wire.



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