

Vatronics Technologies Limited*

Introduction:

•MF52 is a small size resin encapsulated NTC thermistor that is produced with new materials and new techniques. It is characterized by high precision and quick response.

* Applications:

•Vatronics is Suitable for the use in air conditioning, central heating equipment, electronic clinical thermometer, liquid level sensor, automobile electronics and electronic calendar.

* Features:

- 1.High precision;
- 2.Small size, quick response;
- 3.Long-time stable operation allowable;



- 4.Good interchangeability, high consistency.

* Vatronics Part Number System

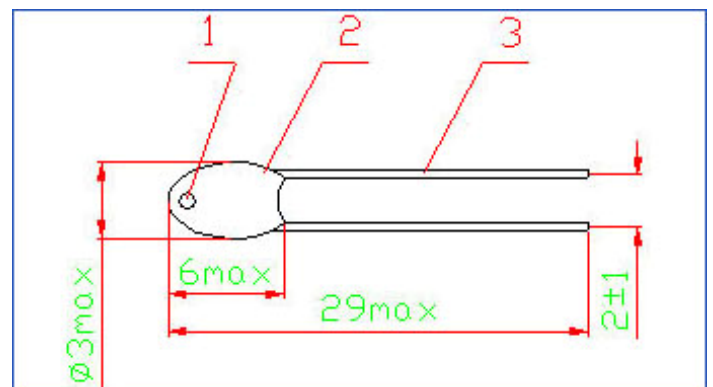
MF52 E 103 H L 347

① Chip NTC thermistor ② E•Epoxy resin encapsulation S•Silicone encapsulation ③ Normal resistance: R25 10K Ω -103

④ Resistance tolerance: F• $\pm 1\%$ G• $\pm 2\%$ H• $\pm 3\%$ J• $\pm 5\%$ K• $\pm 10\%$ ⑤ L•B25/50 H•B25/85 T•Special temperature range

□ B value: 347•3470 338•3380 (First three digits are significant.)

Dimensions: (mm)•



* Specifications

Model Number	Normal Resistance	B Value	Dissipation Coefficient	Time Constant	Operating Temperature Range
MF52	100Ω-10KΩ	3100K	≥2.5mW/• in still air	≤7S in still air	-40•~+120•
MF52	200Ω-10KΩ	3270K			
MF52	500Ω-15KΩ	3470K			
MF52	1KΩ-50KΩ	3600K			
MF52	5KΩ-50KΩ	3950K			
MF52	10KΩ-100KΩ	4050K			
MF52	10KΩ-100KΩ	4150K			
MF52	20KΩ-500KΩ	4300K			

Note:

- 1 Resistance tolerance: F•±1% G•±2% H•±3% J•±5% K•±10% •
- 2 B value (25/50oC) tolerance: ±1% when normal resistance tolerance is ±1%; ±2% for others.
- 3 We can design and produce new models and products according to customer's requirements.

*** Points for Attention:**

- 1•Vatronics MF52 series cannot withstand too large tensile force between two terminals of the lead wire due to small size and small solder joint.
- 2•You are recommended to solder where 5mm is away from the end of lead wire as soon as possible.
- 3•MF52E series thermistor cannot be used directly in water.

MF52 Common Type Resistance-Temperature Contrast (Unit: KW)

	R₂₅	10 KΩ	50 KΩ	100 KΩ	50 KΩ	50 KΩ	100 KΩ	100 KΩ	150 KΩ
	B	3950	3950	4000	4050	4150	4150	4300	4500
T(°C)	R_t								
-30		181.70	908.30	1790.00					
-25		133.30	666.50	1321.00					
-20		98.88	494.50	984.70					
-15		74.10	370.50	740.80					
-10		56.06	280.30	562.30					
-5		42.80	214.00	430.50					

0	98.96	164.80	332.30	168.80	172.00	344.10	352.40	576.70
5	25.58	127.90	257.50	131.30	132.20	264.30	270.00	433.20
10	20.00	99.98	201.10	101.00	102.40	204.80	208.30	328.40
15	15.76	78.79	158.20	79.28	80.03	160.10	161.90	250.90
20	12.51	62.55	125.40	62.78	63.00	125.00	136.70	193.30
25	10.00	50.00	100.00	50.00	50.00	100.00	100.00	150.00
30	8.048	40.24	80.29	39.98	39.76	79.51	78.35	117.30
35	6.518	32.59	64.87	32.16	31.89	63.77	62.37	92.28
40	5.312	26.56	57.72	26.10	25.73	51.45	49.94	73.11
45	4.354	21.77	43.10	21.35	20.88	41.76	40.22	58.28
50	3.588	17.94	35.42	17.72	17.04	34.08	32.56	46.74
55	2.974	14.87	29.26	14.36	13.99	27.97	26.40	37.71
60	2.476	12.38	24.30	11.92	11.53	23.06	21.53	30.58
65	2.072	10.36	20.27	9.938	9.541	19.08	17.69	24.94
70	1.743	8.717	16.99	8.317	7.929	15.86	14.62	20.45
75	1.473	7.364	14.31	6.991	6.621	13.24	12.20	16.85
80	1.250	6.248	12.10	5.906	5.552	11.10	10.05	13.94
85	1.065	5.324	10.27	5.012	4.674	9.348	8.376	11.60
90	0.911	4.555	8.758	4.271	3.950	7.900	7.004	9.680
95	0.7824	3.912	7.495	3.654	3.349	6.698	5.894	8.118
100	0.6744	3.372	6.438	3.316	2.849	5.698	4.978	6.836
105	0.5836	2.918	5.550	2.701	2.438	4.875	4.215	5.780
110	0.5066	2.533	4.801	2.336	2.093	4.186	3.580	4.904

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<http://www.vatronics.com>