



THE DATASHEET OF MF58203F3950

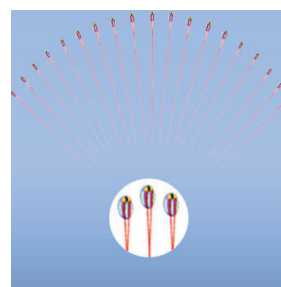
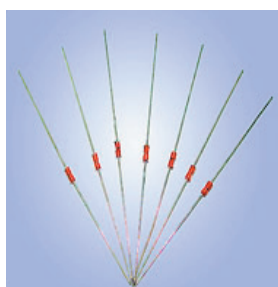
MF58 MF51



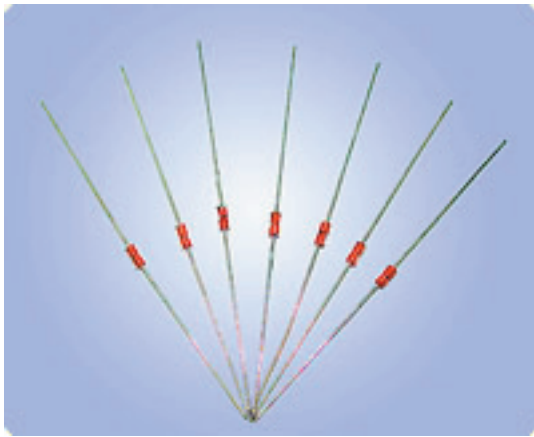
CANTHERM

Supplying high-quality bimetal and thermal sensor products.

PRECISION GLASS ENCAPSULATED
NTC THERMISTORS (MF58 & MF51)



MF58



Glass Shell Precision NTC Thermistors

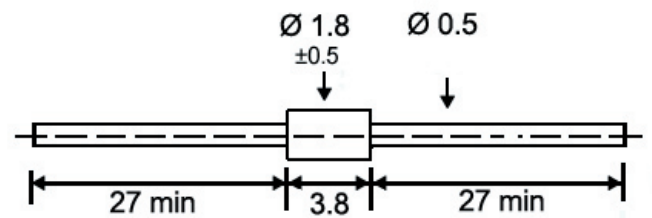
The MF58 is a NTC thermistor which is manufactured using a combination of ceramic and semiconductor techniques. It is equipped with tinned axial leads and then wrapped with purified glass.

Applications

Temperature compensation and detection for:

- Household appliances (air conditioners, microwave ovens, electric fans, electric heaters etc.)
- Office equipment (copiers, printers etc.)
- Industrial, medical, environmental, weather and food processing equipment
- Liquid level detection and flow rate measurement
- Mobile phone battery
- Apparatus coils, integrated circuits, quartz crystal oscillators and thermocouples.

Dimensions (mm)



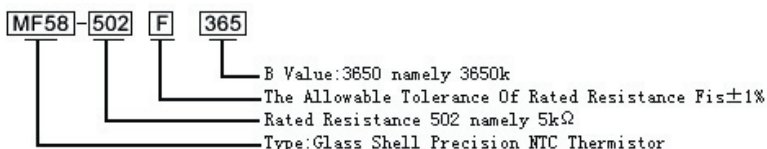
Features

- Good stability and repeatability
- High reliability
- Wide range of resistance: 0.1~1000K Ω
- Tight tolerance on resistance and Beta values
- Usable in high-temperature and high-moisture environments
- Small, light, strong package,
- Suitable for automatic insertion on thru-hole PCBs
- Rapid response
- High sensitivity

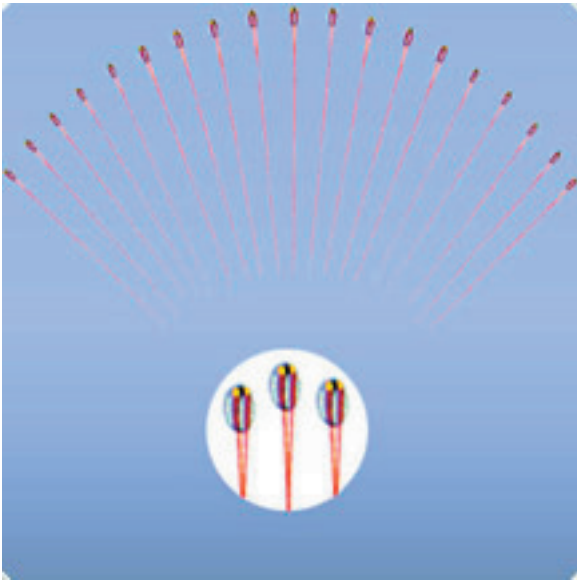
Main Techno-Parameter

- Zero power resistance range (R25): 0.1~1000K Ω
- Available tolerances of R25:
F=±1% G=±2% H=±3% J=±5% K=±10%
- B value (B25/50°C) range: 3100~4500K
- Available tolerances of B value: ±0.5%, ±1%, ±2%
- Dissipation factor: ≥2mW/°C (In Still Air)
- Thermal time constant: ≤20S (In Still Air)
- Operating temperature range: -55°C ~ +200°C
- Rated Power: ≤50mW

Specifications



MF51-B



Precision Glass Encapsulated NTC Thermistor for Temperature Measurement

The MF51 NTC thermistor is a small chip thermistor encased in glass with bare radial copper leads. The chip is made from a new material using new techniques which provide benefits such as high precision, fast response, reliable stability, no aging effect and improved moisture resistance.

Applications

It can be used in applications such as refrigeration, HVAC, heating equipment, electronic thermostats, liquid level sensing, automotive electronics, electronic dashboards, etc.

Dimensions (mm)



Specifications

MF51 B 103 F 3380

F = $\pm 1\%$
G = $\pm 2\%$
H = $\pm 3\%$
J = $\pm 5\%$

The fourth pane shows the Beta value (B25/50C)

The third pane shows the tolerance code of rated resistance.

The second pane shows the rated resistance at 25C (R25).

The first pane holds the dimensional code.

Type high precision temp. measurement chip in glass NTC thermistor

Note: Specifications can change without notice.

MF51 Continued >



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MF51-B Physical Characteristics

Model	Dissi. Coef (mW/°C)	Thermal Time Constant (S)
	In still air	In still air
MF51-B	≥ 1.0	≤ 12

Model	Rated Resistance R25		B Value (25/50°C)		Operating Temp. (°C)
	K Ω	Tolerance	K	Tolerance	
MF51B __3380	2 - 10	$\pm 1\%$	3380	*	-50°C–260°C
MF51B __3950	10 - 50	$\pm 2\%$	3950	$\pm 2\%$	
MF51B __3950	50 - 100	$\pm 3\%$	3950	$\pm 3\%$	
MF51B __4150	100 - 350	$\pm 5\%$	4150	$\pm 3\%$	

* If the tolerance of R25 is $\pm 1\%$, the tolerance of B25/50 = $\pm 1\%$.

If the tolerance of R25 is $\pm 2\%$ or greater, the tolerance of B25/50 = $\pm 2\%$.



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