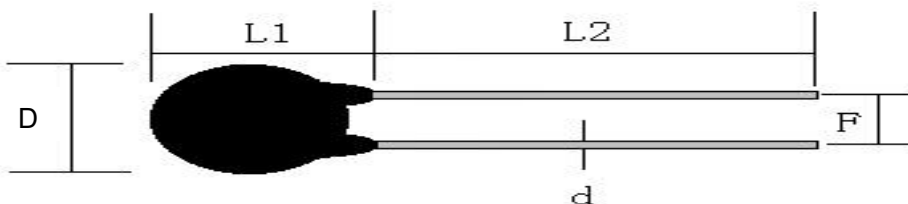


MF52 Pearl-Shape Temperature Measurement NTC Thermistor

MF52-CP Series

Structure and Dimensions (Unit: mm)



D (Max)	L1 (±1.0)	L2 (Min)	d (+0.1)	F (+0.5)
3.0	3.5	20	0.4 customizable	2.0 customizable

Part Number Code

MF52 - 103 F 3950 F B CP

(1) (2) (3) (4) (5) (6) (7)

- (1) MF52: NTC Thermistor.
- (2) 103: Nominal Zero-Power Resistance at 25°C: 222=2.2kΩ; 103=10kΩ.
- (3) F: Tolerance of Resistance: F: ±1%; H: ±3%; J: ±5%.
- (4) 3950: B Constant: 3950=3950K.
- (5) F: Tolerance of B Constant: F: ±1%.
- (6) B: B Constant Calculation Method: A: 25°C & 85°C; B: 25°C & 50°C.
- (7) CP: CP Wire.

MF52 Pearl-Shape Temperature Measurement NTC Thermistor

MF52-CP Series

Electrical Characteristics

Part Number	Resistance (25°C) (kΩ)	B Constant (25/50°C) (K)	B Constant (25/85°C) (K)	Dissipation Factor (mW/°C)	Thermal Time Constant (s)	Operating Ambient Temperature (°C)
MF52-202F3470FBCP	2±1%	3470±1%	--	3	12	-40~+125
MF52-202F3550FBCP	2±1%	3550±1%	--	3	12	-40~+125
MF52-202F3580FBCP	2±1%	3580±1%	--	3	12	-40~+125
MF52-202F3950FBCP	2±1%	3950±1%	--	3	12	-40~+125
MF52-502F3470FBCP	5±1%	3470±1%	--	3	12	-40~+125
MF52-502F3950FBCP	5±1%	3950±1%	--	3	12	-40~+125
MF52-103F3380FBCP	10±1%	3380±1%	--	3	12	-40~+125
MF52-103F3435FACP	10±1%	--	3435±1%	3	12	-40~+125
MF52-103F3470FBCP	10±1%	3470±1%	--	3	12	-40~+125
MF52-103F3450FACP	10±1%	--	3450±1%	3	12	-40~+125
MF52-103F3950FBCP	10±1%	3950±1%	--	3	12	-40~+125
MF52-103F3977FACP	10±1%	--	3977±1%	3	12	-40~+125
MF52-103F4100FBCP	10±1%	4100±1%	--	3	12	-40~+125
MF52-153F3950FBCP	15±1%	3950±1%	--	3	12	-40~+125
MF52-203F3950FBCP	20±1%	3950±1%	--	3	12	-40~+125
MF52-503F3950FBCP	50±1%	3950±1%	--	3	12	-40~+125
MF52-503F3990FBCP	50±1%	3990±1%	--	3	12	-40~+125
MF52-503F4050FBCP	50±1%	4050±1%	--	3	12	-40~+125
MF52-104F3950FBCP	100±1%	3950±1%	--	3	12	-40~+125
MF52-104F3990FBCP	100±1%	3990±1%	--	3	12	-40~+125
MF52-104F4200FBCP	100±1%	4200±1%	--	3	12	-40~+125

MF52 Pearl-Shape Temperature Measurement NTC Thermistor

MF52-CP Series

Storage Conditions of Products

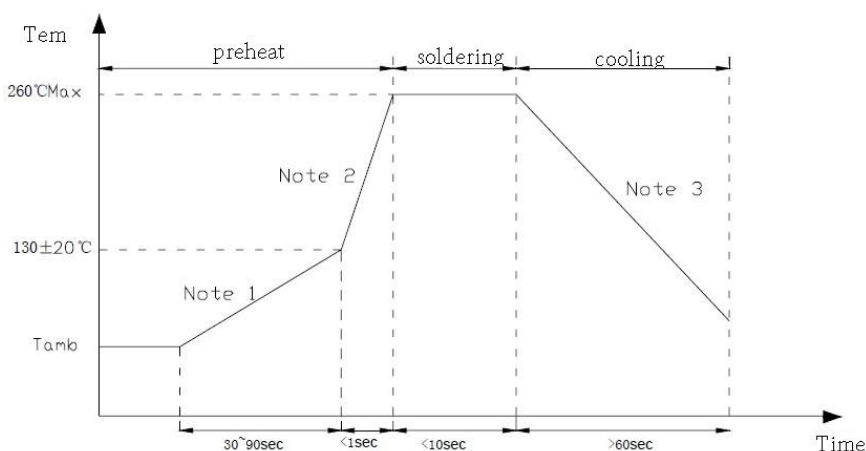
- ◆ Storage Conditions:
 - Storage Temperature: $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$.
 - Relative Humidity: $\leq 75\% \text{RH}$.
 - Keep Away From Corrosive Atmosphere and Sunlight.
- ◆ Period of Storage: 1 Year.

Reliability

Test Description	Standard	Test Condition	Test Requirement
Solder Ability	IEC 60068-2-20	$245 \pm 3^{\circ}\text{C}$, 3 ± 0.3 secs.	Above 95% in the terminal surface shall be with new solder
Resistance to Soldering Heat	IEC 60068-2-20	$260 \pm 5^{\circ}\text{C}$, 10 ± 1 secs.	No visible damage $\Delta R_{25}/R_{25} \cong \pm 3\%$
Low Temperature Storage	IEC 60068-2-1	$-40 \pm 5^{\circ}\text{C}$, 1000 ± 24 hrs.	No visible damage $\Delta R_{25}/R_{25} \cong \pm 3\%$
High Temperature Storage	IEC 60068-2-2	$125 \pm 5^{\circ}\text{C}$, 1000 ± 24 hrs.	No visible damage $\Delta R_{25}/R_{25} \cong \pm 3\%$
Damp Heat, Steady State	IEC 60068-2-78	$40 \pm 2^{\circ}\text{C}$, $90 \sim 95\% \text{RH}$, 1000 ± 24 hrs.	No visible damage $\Delta R_{25}/R_{25} \cong \pm 3\%$

Recommended Welding Conditions

Wave Soldering Curve



- Note 1: $(1 \sim 3)^{\circ}\text{C}/\text{sec}$.
- Note 2: $200^{\circ}\text{C}/\text{sec}$.
- Note 3: $5^{\circ}\text{C}/\text{sec max}$.

MF52 Pearl-Shape Temperature Measurement NTC Thermistor

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Heavy Soldering Conditions

Project	Condition
Soldering Iron Head Temperature	360°C (max)
Weld Time	3 secs. (max)
Distance Between Welding Position and Coating Layer	2 mm (min)

Packing Specification

Part Number	Quantity
MF52-CP Series	500 pcs/bag

Warning



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