

NTC

NTC THERMISTOR SPECIFICATION

TYPE: MF5A-3

1. GENERAL

This specification defines characteristics, dimension and main condition of the NTC thermistor SJMF5A-3.

2. THERMISTOR CHARACTERISTICS

| Item | Sign. | Char. | | | | | | | | | | | | Unit | Tol. |
|------------------------------|--------------------|-------|------|------|------|------|------|------|------|------|------|------|-------|------|------|
| | | 1 | 2.2 | 3.3 | 4.7 | 6.8 | 10 | 22 | 47 | 68 | 100 | 470 | | | |
| 2.1 Resistance | R _{25°C} | 1 | 2.2 | 3.3 | 4.7 | 6.8 | 10 | 22 | 47 | 68 | 100 | 470 | KΩ | 5% | |
| 2.2 B-value | B _{25/50} | 3270 | 3400 | 3470 | 3470 | 3950 | 3950 | 3950 | 3990 | 3950 | 3950 | 4380 | K | 2% | |
| 2.3 Thermal time constant | τ | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | sec | Max | |
| 2.4 Dissipation constant | δ | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | mW/°C | min | |

3.1 Operating temp. (Tw): -30~100°C

3.2 Maximum current (I max): 1.0mA

3.3 Maximum power (P max): 5mW

6.2 High temp. test

placed for 1000 hours, at 100°C (in air)

$\Delta R/R \leq 2\%$

6.3 Low temp. test

placed for 1000 hours, at -30°C (in air)

$\Delta R/R \leq 2\%$

6.4 High temp. humidity test

40°C-95% R.H., placed for 1000 hours.

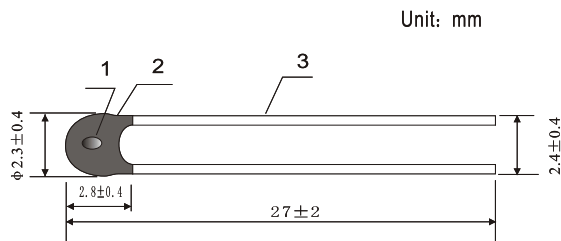
$\Delta R/R \leq 2\%$

6.5 Transfer test

1.0mA × 40 days.

$\Delta R/R \leq 2\%$

4. Shape and dimension



| NO. | Specification & material |
|-----|--------------------------|
| 1. | Chip thermistor |
| 2. | Epoxy resin |
| 3. | φ0.4 CP/Sn Wire |
| | |

6. Reliability characteristics test

6.1 temp. cycle (in air)

-30°C × 5min $\xrightarrow{25^\circ\text{C}}$ +100°C × 5min 500 cycles

$\Delta R/R \leq 2\%$

7. Control the air temperature blown the thermistor head to Max. 250°C when adding a heat shrink protecting tube. And the outlet of hot air blower should be of some distance to the thermistor lest excessively heated. Over heat shock will cause resistance value drift.