

## THERMISTOR SPECIFICATIONS

### 1) SCOPE

This specifications define rating, dimensions, insulation, climatic tests and mechanical characteristics for thermistor.

2) PART NO. : **103AT-11-50081**

### 3) RATING

3-1) Rated zero-power resistance.  $R_{25}$  :  $10 \text{ k}\Omega \pm 1\%$  (at  $25^\circ\text{C}$ )

3-2) B value.  $B_{25/85}$  :  $3,435 \text{ K} \pm 1\%$

\* The B value is calculated using the zero-power resistance values measured at  $25^\circ\text{C}$  and  $85^\circ\text{C}$ .

3-3) Dissipation factor. : Approx.  $3 \text{ mW}/^\circ\text{C}$  (in air)

3-4) Thermal time constant. : Approx.  $75 \text{ s}$  (in air)

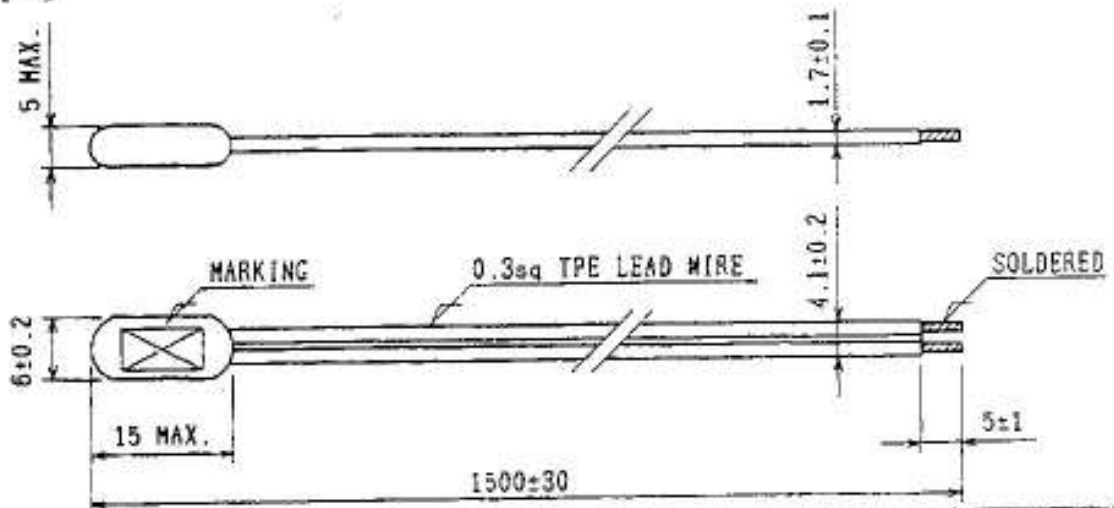
3-5) Maximum power rating. :  $15 \text{ mW}$  (at  $25^\circ\text{C}$ )

3-6) Category temperature range :  $-50 \sim 105^\circ\text{C}$

(= Operating temperature range)

### 4) DIMENSIONS

UNIT:[mm]



10.00 k $\Omega$  / 25  $^{\circ}\text{C}$ R<sub>MAX</sub>R<sub>MIN</sub>

技術本部

温度 ( $^{\circ}\text{C}$ )	最大抵抗 (k $\Omega$ )	標準抵抗 (k $\Omega$ )	最小抵抗 (k $\Omega$ )	温度許容差 ( $^{\circ}\text{C}$ )	
-50	344.6	329.5	315.0		+ 0.8
-49	325.0	310.9	297.4	- 0.8	+ 0.8
-48	306.6	293.5	280.9	- 0.8	+ 0.8
-47	289.4	277.2	265.5	- 0.8	+ 0.8
-46	273.4	262.0	251.0	- 0.8	+ 0.8
-45	258.3	247.7	237.5	- 0.8	+ 0.8
-44	244.2	234.3	224.7	- 0.8	+ 0.8
-43	231.0	221.7	212.8	- 0.8	+ 0.8
-42	218.6	209.9	201.6	- 0.8	+ 0.8
-41	207.0	198.9	191.1	- 0.8	+ 0.8
-40	196.0	188.5	181.2	- 0.8	+ 0.8
-39	185.5	178.5	171.7	- 0.8	+ 0.8
-38	175.6	169.0	162.7	- 0.8	+ 0.8
-37	166.3	160.2	154.3	- 0.8	+ 0.8
-36	157.6	151.9	146.3	- 0.7	+ 0.8
-35	149.4	144.1	138.9	- 0.7	+ 0.7
-34	141.7	136.7	131.8	- 0.7	+ 0.7
-33	134.5	129.8	125.2	- 0.7	+ 0.7
-32	127.7	123.3	119.0	- 0.7	+ 0.7
-31	121.2	117.1	113.1	- 0.7	+ 0.7
-30	115.2	111.3	107.6	- 0.7	+ 0.7
-29	109.4	105.7	102.2	- 0.7	+ 0.7
-28	103.9	100.5	97.21	- 0.7	+ 0.7
-27	98.68	95.52	92.46	- 0.7	+ 0.7
-26	93.80	90.84	87.97	- 0.7	+ 0.7
-25	89.20	86.43	83.74	- 0.7	+ 0.7
-24	84.85	82.26	79.74	- 0.7	+ 0.7
-23	80.76	78.33	75.96	- 0.7	+ 0.7
-22	76.89	74.61	72.39	- 0.7	+ 0.7
-21	73.23	71.10	69.02	- 0.7	+ 0.7
-20	69.77	67.77	65.82	- 0.7	+ 0.7
-19	66.44	64.57	62.74	- 0.6	+ 0.6
-18	63.30	61.54	59.83	- 0.6	+ 0.6
-17	60.33	58.68	57.07	- 0.6	+ 0.6
-16	57.51	55.97	54.47	- 0.6	+ 0.6
-15	54.85	53.41	51.99	- 0.6	+ 0.6
-14	52.33	50.98	49.65	- 0.6	+ 0.6
-13	49.95	48.68	47.43	- 0.6	+ 0.6
-12	47.69	46.50	45.33	- 0.6	+ 0.6
-11	45.55	44.43	43.33	- 0.6	+ 0.6
-10	43.52	42.47	41.44	- 0.6	+ 0.6
- 9	41.55	40.57	39.60	- 0.6	+ 0.6
- 8	39.69	38.77	37.86	- 0.6	+ 0.6
- 7	37.92	37.06	36.21	- 0.6	+ 0.6
- 6	36.25	35.44	34.64	- 0.6	+ 0.6
- 5	34.66	33.90	33.15	- 0.6	+ 0.6
- 4	33.15	32.44	31.74	- 0.5	+ 0.5
- 3	31.72	31.05	30.39	- 0.5	+ 0.5
- 2	30.36	29.73	29.11	- 0.5	+ 0.5
- 1	29.06	28.48	27.90	- 0.5	+ 0.5
0	27.83	27.28	26.74	- 0.5	+ 0.5

10.00 k $\Omega$  / 25  $^{\circ}\text{C}$

B 定數許容差  $\pm 1\%$

技術本音

溫度 ( $^{\circ}\text{C}$ )	最大抵抗 (k $\Omega$ )	標準抵抗 (k $\Omega$ )	最小抵抗 (k $\Omega$ )	溫度許容差 ( $^{\circ}\text{C}$ )	
0	27.83	27.28	26.74	- 0.5	+ 0.5
1	26.65	26.13	25.62	- 0.5	+ 0.5
2	25.52	25.03	24.56	- 0.5	+ 0.5
3	24.44	23.99	23.54	- 0.5	+ 0.5
4	23.42	23.00	22.58	- 0.5	+ 0.5
5	22.45	22.05	21.66	- 0.5	+ 0.5
6	21.52	21.15	20.78	- 0.5	+ 0.5
7	20.64	20.30	19.95	- 0.5	+ 0.5
8	19.81	19.48	19.16	- 0.5	+ 0.5
9	19.01	18.70	18.40	- 0.4	+ 0.5
10	18.24	17.96	17.68	- 0.4	+ 0.4
11	17.51	17.24	16.98	- 0.4	+ 0.4
12	16.81	16.56	16.31	- 0.4	+ 0.4
13	16.14	15.90	15.67	- 0.4	+ 0.4
14	15.50	15.28	15.06	- 0.4	+ 0.4
15	14.89	14.69	14.48	- 0.4	+ 0.4
16	14.31	14.12	13.93	- 0.4	+ 0.4
17	13.75	13.58	13.40	- 0.4	+ 0.4
18	13.22	13.06	12.89	- 0.4	+ 0.4
19	12.72	12.56	12.41	- 0.4	+ 0.4
20	12.24	12.09	11.95	- 0.4	+ 0.4
21	11.77	11.63	11.50	- 0.3	+ 0.4
22	11.32	11.20	11.07	- 0.3	+ 0.3
23	10.90	10.78	10.67	- 0.3	+ 0.3
24	10.49	10.38	10.27	- 0.3	+ 0.3
25	10.10	10.00	9.900	- 0.3	+ 0.3
26	9.732	9.632	9.533	- 0.3	+ 0.3
27	9.380	9.281	9.181	- 0.3	+ 0.3
28	9.043	8.944	8.845	- 0.4	+ 0.4
29	8.721	8.622	8.523	- 0.4	+ 0.4
30	8.412	8.313	8.215	- 0.4	+ 0.4
31	8.112	8.014	7.917	- 0.4	+ 0.4
32	7.826	7.728	7.631	- 0.4	+ 0.4
33	7.551	7.454	7.358	- 0.4	+ 0.4
34	7.288	7.192	7.096	- 0.4	+ 0.4
35	7.035	6.940	6.846	- 0.4	+ 0.4
36	6.793	6.699	6.605	- 0.4	+ 0.4
37	6.560	6.467	6.375	- 0.5	+ 0.5
38	6.337	6.245	6.154	- 0.5	+ 0.5
39	6.123	6.032	5.942	- 0.5	+ 0.5
40	5.918	5.827	5.738	- 0.5	+ 0.5
41	5.718	5.629	5.541	- 0.5	+ 0.5
42	5.526	5.438	5.351	- 0.5	+ 0.5
43	5.342	5.255	5.169	- 0.5	+ 0.5
44	5.165	5.080	4.995	- 0.5	+ 0.5
45	4.995	4.911	4.827	- 0.6	+ 0.6
46	4.832	4.749	4.666	- 0.6	+ 0.6
47	4.675	4.593	4.512	- 0.6	+ 0.6
48	4.524	4.443	4.363	- 0.6	+ 0.6
49	4.379	4.299	4.220	- 0.6	+ 0.6
50	4.239	4.160	4.083	- 0.6	+ 0.6

10.00k $\Omega$  / 25 $^{\circ}\text{C}$ 

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溫度 ( $^{\circ}\text{C}$ )	最大抵抗 (k $\Omega$ )	標準抵抗 (k $\Omega$ )	最小抵抗 (k $\Omega$ )	溫度許容差 ( $^{\circ}\text{C}$ )
50	4.239	4.160	4.083	- 0.6 + 0.6
51	4.103	4.026	3.949	- 0.6 + 0.6
52	3.972	3.896	3.821	- 0.6 + 0.6
53	3.846	3.771	3.697	- 0.7 + 0.7
54	3.725	3.651	3.579	- 0.7 + 0.7
55	3.609	3.536	3.464	- 0.7 + 0.7
56	3.496	3.425	3.354	- 0.7 + 0.7
57	3.388	3.318	3.249	- 0.7 + 0.7
58	3.284	3.215	3.147	- 0.7 + 0.7
59	3.184	3.116	3.049	- 0.7 + 0.7
60	3.087	3.020	2.954	- 0.8 + 0.8
61	2.993	2.927	2.862	- 0.8 + 0.8
62	2.902	2.838	2.774	- 0.8 + 0.8
63	2.815	2.751	2.689	- 0.8 + 0.8
64	2.731	2.668	2.607	- 0.8 + 0.8
65	2.650	2.588	2.528	- 0.8 + 0.8
66	2.571	2.511	2.452	- 0.8 + 0.8
67	2.496	2.436	2.378	- 0.8 + 0.9
68	2.423	2.364	2.307	- 0.9 + 0.9
69	2.352	2.295	2.239	- 0.9 + 0.9
70	2.284	2.228	2.173	- 0.9 + 0.9
71	2.218	2.163	2.109	- 0.9 + 0.9
72	2.154	2.100	2.047	- 0.9 + 0.9
73	2.092	2.039	1.987	- 0.9 + 0.9
74	2.033	1.980	1.929	- 0.9 + 1.0
75	1.975	1.924	1.873	- 1.0 + 1.0
76	1.920	1.869	1.820	- 1.0 + 1.0
77	1.866	1.816	1.768	- 1.0 + 1.0
78	1.814	1.765	1.717	- 1.0 + 1.0
79	1.764	1.716	1.669	- 1.0 + 1.0
80	1.715	1.668	1.622	- 1.0 + 1.0
81	1.668	1.621	1.576	- 1.0 + 1.1
82	1.622	1.577	1.532	- 1.1 + 1.1
83	1.578	1.533	1.490	- 1.1 + 1.1
84	1.535	1.491	1.448	- 1.1 + 1.1
85	1.494	1.451	1.409	- 1.1 + 1.1
86	1.453	1.411	1.370	- 1.1 + 1.1
87	1.415	1.373	1.333	- 1.1 + 1.1
88	1.377	1.336	1.296	- 1.2 + 1.2
89	1.341	1.300	1.261	- 1.2 + 1.2
90	1.305	1.266	1.228	- 1.2 + 1.2
91	1.271	1.232	1.195	- 1.2 + 1.2
92	1.238	1.200	1.163	- 1.2 + 1.2
93	1.205	1.168	1.132	- 1.2 + 1.2
94	1.174	1.137	1.102	- 1.2 + 1.3
95	1.144	1.108	1.073	- 1.3 + 1.3
96	1.115	1.079	1.045	- 1.3 + 1.3
97	1.086	1.051	1.018	- 1.3 + 1.3
98	1.059	1.024	0.9914	- 1.3 + 1.3
99	1.032	0.9984	0.9659	- 1.3 + 1.3
100	1.006	0.9731	0.9412	- 1.3 + 1.4

10.00k $\Omega$  / 25 $^{\circ}$ C

技術本部

温度 ( $^{\circ}$ C)	最大抵抗 (k $\Omega$ )	標準抵抗 (k $\Omega$ )	最小抵抗 (k $\Omega$ )	温度許容差 ( $^{\circ}$ C)
100	1.006	0.9731	0.9412	- 1.3 + 1.4
101	0.9808	0.9484	0.9171	- 1.4 + 1.4
102	0.9563	0.9246	0.8938	- 1.4 + 1.4
103	0.9326	0.9014	0.8712	- 1.4 + 1.4
104	0.9096	0.8789	0.8492	- 1.4 + 1.4
105	0.8873	0.8572	0.8280	- 1.4 + 1.4
106	0.8656	0.8360	0.8074	- 1.4 + 1.5
107	0.8446	0.8155	0.7874	- 1.5 + 1.5
108	0.8242	0.7956	0.7680	- 1.5 + 1.5
109	0.8044	0.7763	0.7491	- 1.5
110	0.7851	0.7576	0.7309	- 1.5