

Approval Sheet

Manufacturer:

Customer:

汎翊國際有限公司

Approved By:	Checked By:	Prepared By :

Approved By:	Examined By:	Tested By :

Company Stamp	
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Company Stamp	
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Approval No. : A616-093

Product : NTC THERMISTOR

Part No : ESTA4103F3435F-3008021SF

Specifications : R25 10,000 Ω $\pm$ 1 %

B25/85 3435 K $\pm$ 1 %

Date : 2022/02/15

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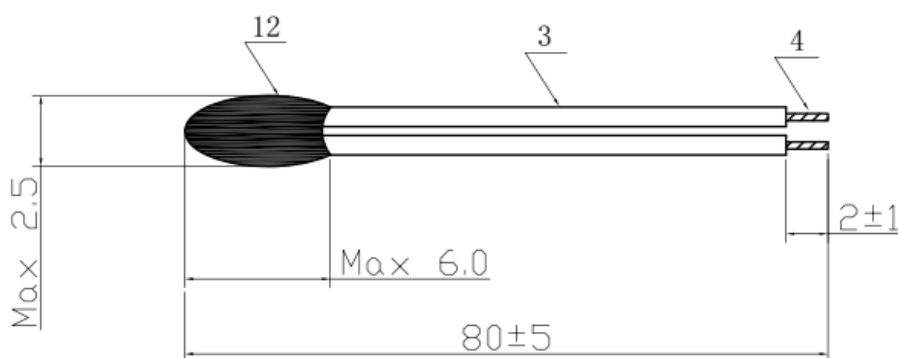
◆ **PART NO. :** ESTA4103F3435F-3008021SF

◆ **FEATURES**

- Low cost
- High stability
- Small size and fast thermal response

◆ **SHAPE & DIMENSIONS**

Unit : mm



No.	Part Name	Materials	Remark
1	NTC Thermistor	Metal Oxide	---
2	Coating	Epoxy	Color : Black
3	Lead Wire	Teflon	UL1332 30 AWG , Color : Black
4	End	Soldered Terminal	---

◆ **ELECTRICAL CHARACTERISTICS**

Style	Symbol	Condition	Specification
Resistance at Ta	R	Ta = 25 °C	10 K Ω ± 1 %
B Constant	B	25 °C / 85 °C	3435 K ± 1 %
Thermal Time Constant	C	Ta = 25 °C	15 sec
Thermal Dissipation Constant	T	Ta = 25 °C	2.5 mW/°C
Operating Temp. Range	--	--	- 30 °C ~ 105 °C

◆ RELIABILITY TEST

Performance	Test Method	$\Delta R_{25} / R_{25}$
Resistance to Soldering Heat	Soldering 260 ± 5 °C for 10 sec	Max. ± 3 %
Humidity	45 ± 2 °C, 95 % RH x 1000 hours	Max. ± 3 %
Thermal shock	(- 30°Cx30min $\rightarrow$ 100°Cx30min) x 10 times	Max. ± 3 %
High temperature storage	100 ± 3 °C x 1000 hours	Max. ± 3 %
Low temperature storage	- 30 ± 3 °C x 1000 hours	Max. ± 3 %

◆ STORAGE CONDITIONS

- Storage Temperature : - 10 °C ~ + 40 °C.
- Relative humidity : 30 ~ 75 % RH.
- Thermistor must be kept away from sunshine and stored in a non-corrosive atmosphere.
- Period of Storage : 1 year.

◆ ORDERING INFORMATION

ES TA4 103 F 3435 F - 30 080 21 S F
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

- E WAY Sensor.
- TA4 series Thermistor.
- Resistance at 25 °C : 103 = $10 \times 10^3 = 10,000$ (Ω).
- Tolerance of R : F: $\pm 1\%$; G: $\pm 2\%$; H: $\pm 3\%$; J: $\pm 5\%$; K: $\pm 10\%$.
- B value (K).
- Tolerance of B : F: $\pm 1\%$; G: $\pm 2\%$; H: $\pm 3\%$; J: $\pm 5\%$.
- Wire Gauge : 30 = 30 AWG.
- Length (All) : 080 = 80 mm.
- Solder Length & Tolerance : 21 = 2 ± 1 mm.
- Wire Type : S = Separate ; C = Connect ; D = Differ.
- Wire UL Type : F = UL1332 Teflon.



Resistance-Temperature Characteristics

Part No. : **ESTA4103F3435F-3008021SF**

R25 :	10,000	Ω	$\pm$	1%
B25/85 :	3435	K	$\pm$	1%

Temperature (°C)	Resistance (Ω)			Temp. Coef. (%/°C)	Resist. Tol. (%)		Temp. Tol. (°C)	
	MIN.	CENTER	MAX.		MIN.	MAX.	MIN.	MAX.
-30	114301	118344	122517	-5.38	-3.42	3.53	-0.66	0.63
-29	108392	112166	116059	-5.34	-3.36	3.47	-0.65	0.63
-28	102829	106352	109985	-5.30	-3.31	3.42	-0.64	0.62
-27	97588	100879	104270	-5.26	-3.26	3.36	-0.64	0.62
-26	92650	95724	98890	-5.23	-3.21	3.31	-0.63	0.61
-25	87995	90867	93823	-5.19	-3.16	3.25	-0.63	0.61
-24	83604	86288	89049	-5.15	-3.11	3.20	-0.62	0.60
-23	79461	81970	84550	-5.12	-3.06	3.15	-0.62	0.60
-22	75551	77897	80308	-5.08	-3.01	3.09	-0.61	0.59
-21	71859	74053	76306	-5.04	-2.96	3.04	-0.60	0.59
-20	68371	70423	72529	-5.01	-2.91	2.99	-0.60	0.58
-19	65075	66995	68964	-4.97	-2.87	2.94	-0.59	0.58
-18	61959	63756	65597	-4.94	-2.82	2.89	-0.58	0.57
-17	59013	60694	62416	-4.90	-2.77	2.84	-0.58	0.56
-16	56225	57798	59410	-4.87	-2.72	2.79	-0.57	0.56
-15	53587	55060	56567	-4.84	-2.67	2.74	-0.57	0.55
-14	51089	52468	53878	-4.80	-2.63	2.69	-0.56	0.55
-13	48724	50015	51335	-4.77	-2.58	2.64	-0.55	0.54
-12	46483	47692	48927	-4.74	-2.53	2.59	-0.55	0.53
-11	44359	45491	46647	-4.71	-2.49	2.54	-0.54	0.53
-10	42345	43405	44488	-4.68	-2.44	2.49	-0.53	0.52
-9	40435	41428	42442	-4.65	-2.40	2.45	-0.53	0.52
-8	38623	39554	40502	-4.62	-2.35	2.40	-0.52	0.51
-7	36904	37775	38663	-4.59	-2.31	2.35	-0.51	0.50
-6	35271	36088	36919	-4.56	-2.26	2.30	-0.51	0.50
-5	33721	34486	35264	-4.53	-2.22	2.26	-0.50	0.49
-4	32248	32965	33694	-4.50	-2.17	2.21	-0.49	0.48
-3	30849	31520	32203	-4.47	-2.13	2.17	-0.48	0.48
-2	29518	30147	30786	-4.44	-2.09	2.12	-0.48	0.47
-1	28253	28842	29441	-4.41	-2.04	2.08	-0.47	0.46
0	27050	27602	28162	-4.38	-2.00	2.03	-0.46	0.46
1	25905	26422	26947	-4.35	-1.96	1.99	-0.46	0.45
2	24816	25300	25791	-4.33	-1.91	1.94	-0.45	0.44
3	23778	24232	24692	-4.30	-1.87	1.90	-0.44	0.44
4	22790	23215	23646	-4.27	-1.83	1.85	-0.43	0.43
5	21849	22247	22650	-4.25	-1.79	1.81	-0.43	0.42
6	20953	21325	21702	-4.22	-1.75	1.77	-0.42	0.41
7	20098	20447	20799	-4.19	-1.71	1.72	-0.41	0.41
8	19283	19610	19939	-4.17	-1.66	1.68	-0.40	0.40
9	18506	18811	19120	-4.14	-1.62	1.64	-0.40	0.39
10	17765	18050	18339	-4.12	-1.58	1.60	-0.39	0.38

Resistance-Temperature CharacteristicsPart No. : ESTA4103F3435F-3008021SF

R25 :	10,000	Ω	±	1%
B25/85 :	3435	K	±	1%

Temperature (°C)	Resistance (Ω)			Temp. Coef. (%/°C)	Resist. Tol. (%)		Temp. Tol. (°C)	
	MIN.	CENTER	MAX.		MIN.	MAX.	MIN.	MAX.
11	17057	17325	17594	-4.09	-1.54	1.56	-0.38	0.38
12	16382	16632	16884	-4.07	-1.50	1.52	-0.37	0.37
13	15738	15971	16207	-4.04	-1.46	1.47	-0.36	0.36
14	15122	15340	15560	-4.02	-1.42	1.43	-0.36	0.35
15	14534	14738	14943	-3.99	-1.38	1.39	-0.35	0.35
16	13972	14163	14354	-3.97	-1.34	1.35	-0.34	0.34
17	13435	13613	13791	-3.95	-1.30	1.31	-0.33	0.33
18	12922	13088	13254	-3.92	-1.27	1.27	-0.32	0.32
19	12431	12585	12741	-3.90	-1.23	1.23	-0.32	0.31
20	11961	12105	12250	-3.88	-1.19	1.19	-0.31	0.31
21	11512	11646	11781	-3.85	-1.15	1.15	-0.30	0.30
22	11083	11207	11332	-3.83	-1.11	1.12	-0.29	0.29
23	10671	10787	10903	-3.81	-1.07	1.08	-0.28	0.28
24	10277	10385	10493	-3.79	-1.04	1.04	-0.27	0.27
25	9900	10000	10100	-3.77	-1.00	1.00	-0.27	0.27
26	9532	9631	9731	-3.74	-1.04	1.04	-0.28	0.28
27	9179	9278	9378	-3.72	-1.07	1.08	-0.29	0.29
28	8841	8940	9040	-3.70	-1.11	1.11	-0.30	0.30
29	8517	8616	8715	-3.68	-1.15	1.15	-0.31	0.31
30	8207	8306	8404	-3.66	-1.18	1.19	-0.32	0.32
31	7910	8008	8106	-3.64	-1.22	1.22	-0.34	0.34
32	7626	7723	7820	-3.62	-1.26	1.26	-0.35	0.35
33	7353	7449	7546	-3.60	-1.29	1.30	-0.36	0.36
34	7091	7186	7282	-3.58	-1.33	1.33	-0.37	0.37
35	6840	6934	7029	-3.56	-1.36	1.37	-0.39	0.38
36	6599	6693	6787	-3.54	-1.40	1.41	-0.40	0.39
37	6368	6461	6554	-3.52	-1.43	1.44	-0.41	0.41
38	6146	6238	6330	-3.50	-1.47	1.48	-0.42	0.42
39	5933	6024	6115	-3.48	-1.50	1.51	-0.43	0.43
40	5729	5818	5908	-3.46	-1.53	1.55	-0.45	0.44
41	5533	5621	5710	-3.44	-1.57	1.58	-0.46	0.46
42	5344	5431	5519	-3.42	-1.60	1.62	-0.47	0.47
43	5163	5249	5335	-3.41	-1.64	1.65	-0.49	0.48
44	4989	5073	5159	-3.39	-1.67	1.69	-0.50	0.49
45	4821	4905	4989	-3.37	-1.70	1.72	-0.51	0.51
46	4660	4743	4826	-3.35	-1.74	1.76	-0.52	0.52
47	4506	4587	4669	-3.33	-1.77	1.79	-0.54	0.53
48	4357	4437	4518	-3.32	-1.80	1.82	-0.55	0.54
49	4214	4293	4372	-3.30	-1.83	1.86	-0.56	0.56
50	4076	4154	4232	-3.28	-1.87	1.89	-0.58	0.57
51	3944	4020	4097	-3.26	-1.90	1.92	-0.59	0.58

Resistance-Temperature CharacteristicsPart No. : ESTA4103F3435F-3008021SF

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B25/85 :	3435	K	±	1%

Temperature (°C)	Resistance (Ω)			Temp. Coef. (%/°C)	Resist. Tol. (%)		Temp. Tol. (°C)	
	MIN.	CENTER	MAX.		MIN.	MAX.	MIN.	MAX.
52	3816	3891	3967	-3.25	-1.93	1.96	-0.60	0.59
53	3693	3767	3842	-3.23	-1.96	1.99	-0.62	0.61
54	3575	3648	3722	-3.21	-1.99	2.02	-0.63	0.62
55	3461	3533	3605	-3.20	-2.02	2.06	-0.64	0.63
56	3352	3422	3493	-3.18	-2.06	2.09	-0.66	0.65
57	3246	3315	3385	-3.16	-2.09	2.12	-0.67	0.66
58	3144	3212	3281	-3.15	-2.12	2.15	-0.68	0.67
59	3046	3113	3181	-3.13	-2.15	2.19	-0.70	0.69
60	2952	3017	3084	-3.11	-2.18	2.22	-0.71	0.70
61	2860	2925	2991	-3.10	-2.21	2.25	-0.73	0.71
62	2772	2836	2901	-3.08	-2.24	2.28	-0.74	0.73
63	2688	2750	2814	-3.07	-2.27	2.31	-0.75	0.74
64	2606	2667	2730	-3.05	-2.30	2.34	-0.77	0.75
65	2527	2587	2649	-3.04	-2.33	2.37	-0.78	0.77
66	2451	2510	2570	-3.02	-2.36	2.41	-0.80	0.78
67	2377	2436	2495	-3.01	-2.39	2.44	-0.81	0.79
68	2306	2364	2422	-2.99	-2.42	2.47	-0.83	0.81
69	2238	2294	2351	-2.98	-2.45	2.50	-0.84	0.82
70	2172	2227	2283	-2.96	-2.48	2.53	-0.85	0.84
71	2108	2162	2218	-2.95	-2.50	2.56	-0.87	0.85
72	2046	2100	2154	-2.93	-2.53	2.59	-0.88	0.86
73	1987	2039	2093	-2.92	-2.56	2.62	-0.90	0.88
74	1929	1981	2033	-2.90	-2.59	2.65	-0.91	0.89
75	1874	1924	1976	-2.89	-2.62	2.68	-0.93	0.91
76	1820	1869	1920	-2.87	-2.65	2.71	-0.94	0.92
77	1768	1817	1866	-2.86	-2.67	2.74	-0.96	0.93
78	1718	1765	1814	-2.85	-2.70	2.77	-0.97	0.95
79	1669	1716	1764	-2.83	-2.73	2.80	-0.99	0.96
80	1622	1668	1715	-2.82	-2.76	2.83	-1.00	0.98
81	1577	1622	1668	-2.81	-2.78	2.85	-1.02	0.99
82	1533	1577	1623	-2.79	-2.81	2.88	-1.03	1.01
83	1490	1534	1579	-2.78	-2.84	2.91	-1.05	1.02
84	1449	1492	1536	-2.77	-2.87	2.94	-1.06	1.04
85	1409	1451	1494	-2.75	-2.89	2.97	-1.08	1.05
86	1371	1412	1454	-2.74	-2.92	3.00	-1.09	1.07
87	1333	1374	1416	-2.73	-2.95	3.02	-1.11	1.08
88	1297	1337	1378	-2.71	-2.97	3.05	-1.13	1.10
89	1262	1301	1341	-2.70	-3.00	3.08	-1.14	1.11
90	1228	1267	1306	-2.69	-3.02	3.11	-1.16	1.13
91	1196	1233	1272	-2.68	-3.05	3.14	-1.17	1.14
92	1164	1201	1239	-2.66	-3.08	3.16	-1.19	1.16



Resistance-Temperature Characteristics

Part No. : ESTA4103F3435F-3008021SF

R25 :	10,000	Ω	±	1%
B25/85 :	3435	K	±	1%

Temperature (°C)	Resistance (Ω)			Temp. Coef. (%/°C)	Resist. Tol. (%)		Temp. Tol. (°C)	
	MIN.	CENTER	MAX.		MIN.	MAX.	MIN.	MAX.
93	1133	1169	1207	-2.65	-3.10	3.19	-1.20	1.17
94	1103	1139	1175	-2.64	-3.13	3.22	-1.22	1.19
95	1074	1109	1145	-2.63	-3.15	3.25	-1.24	1.20
96	1046	1081	1116	-2.61	-3.18	3.27	-1.25	1.22
97	1019	1053	1087	-2.60	-3.20	3.30	-1.27	1.23
98	993	1026	1060	-2.59	-3.23	3.33	-1.28	1.25
99	967	1000	1033	-2.58	-3.25	3.35	-1.30	1.26
100	942	974	1007	-2.57	-3.28	3.38	-1.32	1.28
101	918	950	982	-2.55	-3.30	3.41	-1.33	1.29
102	895	926	957	-2.54	-3.33	3.43	-1.35	1.31
103	872	902	934	-2.53	-3.35	3.46	-1.37	1.32
104	850	880	911	-2.52	-3.38	3.48	-1.38	1.34
105	829	858	888	-2.51	-3.40	3.51	-1.40	1.36