THINKING ELECTRONIC INDUSTRIAL CO., LTD

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SPECIFICATION FOR APPROVAL

CUSTOMER	Ozdisan
CERTIFIED	
MODEL/TYPE	
PART NO.	NTSG0103FZ584~584B(RoHS)
APPLICATION	
CUSTOMER P/N	
ISSUE DATE	Aug.25.2025
REV. NO.	1.0
REV. DATE	

FOR CUSTOMER APPROVAL	CHECKED BY
	Hu Feng
	APPROVED BY
	Hu Feng

CUSTOMER:Ozdisan

THINKING P/N:NTSG0103FZ584~584B

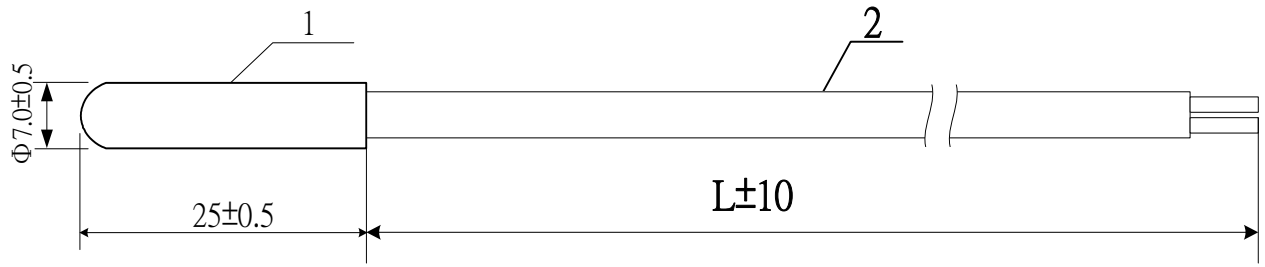
REVISED RECORD SHEET

REV. NO	REV. DATE	REVISED CONTENT
1.0	2025/8/25	New Released

Thinking P/N	Drawing NO.	L	Wire Color
NTSG0103FZ584	SG2508027	1600mm	White(Core wire:white,white)
NTSG0103FZ584A	SG2508028	1200mm	Orange(Core wire:orange,orange)
NTSG0103FZ584B	SG2508029	800mm	Red (Core wire : red,red)

A. Material List		
NO.	ITEM	DESCRIPTION
1	CAP	Φ7*25 PBT PLASTIC（white）
2	Lead Wire	NUL#24*2C TS WIRE （OD:2.9*4.0）
*	ELEMENT	NTC Thermistor

B. Electrical Characteristic	
ITEM	VALUE
R25℃	10KΩ ±1%
B25/85℃	3970K ± 1%



						Customer	Ozdisan
						Customer P/N	
						Thinking P/N	NTSG0103FZ584~584B
						Drawing NO.	SG25080**
						Date	2025/8/25
						Tol: ±mm	Unit: mm Scale:
1.0	2025/8/25	New Released	Luo Chun Long	Hu Feng	Hu Feng	THINKING ELECTRONIC INDUSTRIAL CO., LTD.	
Rev.	Date	Subjects of Change	Designed by	Checked by	Approved by		

CUSTOMER:Ozdisan

THINKING P/N:NTSG0103FZ584~584B

NO.	PART NAME	PART P/N	Q'TY	FLAMMABILITY SOLID BURNING CLASS	UL FILE NO
1	CAP	Φ7*25 PBT PLASTIC（white）	1		
2	Lead Wire	NUL#24*2C TS WIRE （OD:2.9*4.0）	1		
*	ELEMENT	NTC Thermistor	1		

Approved by: Hu Feng Checked by: Hu Feng Designed by: Luo Chun Long

Specification of NTC Thermistor for Temperature Measurement and Control

PART NO . NTSG0103FZ584~584B

CUSTOMER P/N .

1. Electrical characteristics

	Parameter	Symbol	Test Conditions	Min.	Nor.	Max.	Unit.
a.	Resistance At25℃	R_{25}	Ta=25℃±0.05℃ $P_T \leqq 0.1mW$	9.90	10.00	10.10	KΩ
b.	B Constant	$B_{25/85}$	1779.707*Ln (R25/R85)	3930	3970	4010	K
c.	Thermal Dissipation Constant (in air)	δ	Ta=25℃	-----	Apporx5	-----	mW/℃
d.	Thermal Time Constant (in water)	τ	25℃→85℃ T1=25+(85-25)*63.2%=62.92	-----	Apporx20	------	Sec
e.	Hi-Pot Test	-----	1000V AC3Sec	-----	-----	10	mA
f.	Insulation test	-----	500V DC 3Sec	Min : 100 MΩ			

2.Maximun Ratings

	Parameter	Specification	Unit
a.	Operation Temperature Range	-40 ----- +105	℃

3. Reliability Test

Item	Test Conditions	Variable
Temp. cycle test	-40 ℃ X 30min → +25 ℃ X 5min +105℃ X 30min → +25 ℃ X 5min } X 5Cycles	Within ± 3 %
Low temp.test	-40± 5℃ X 1000 HRS	Within ± 3 %
High temp.test	105± 5℃ X 1000 HRS	Within ± 3 %
Humidity test	40 ℃ 95 % RH X 1000 HRS	Within ± 3 %

*This product is made by high temperature resistant glass which contains lead.

Install and use

1. Use this product within the specified temperature range.
2. Higher temperature may cause deterioration of the characteristics or the material quality of this product.
3. Do not melt the solder in resin head, when you solder this product. If you melt the solder in resin head, it has possibility that the break of wire, short and insulation damage.
4. Do not touch the resin head directly by solder iron. It may cause the melt of solder in resin head.
5. At least away from resin head 10mm above when lead dividing.
6. In case you cut the lead wire of this product less than 10mm from resin head, the heat of melted solder at lead wire edge is propagated easily to the resin head along the lead wire.
7. Radius of lead bending should be more than 1mm when lead bending. Holding element by side lead wire is recommended when lead wire is bent or cut.
8. Do not apply an excessive force to the lead. Otherwise, it may cause junction between lead and element to break or crack.
9. The ceramic element of this product is fragile, and care must be taken not to load an excessive press-force or not to give a shock at handling. Such forces may cause cracking or chipping.
10. If you mold by resin this product, please evaluate the quality of this product before you use it.

Warehouse Storage Conditions of Products

To keep solderability of product from declining, the following storage condition is recommended.

1. Storage condition:

Temperature -10℃ to +40℃

Humidity less than 75%RH (not dewing condition)

2. Storage term:

Use this product within 1 year after delivery by first-in and first-out stocking system.

3. Handling after unpacking:

After unpacking, reseal product promptly or store it in a sealed container with a drying agent.

4. Storage place:

Do not store this product in corrosive gas (Sulfuric acid gas, Chlorine gas, etc.) or in direct sunlight.

Warn and note item

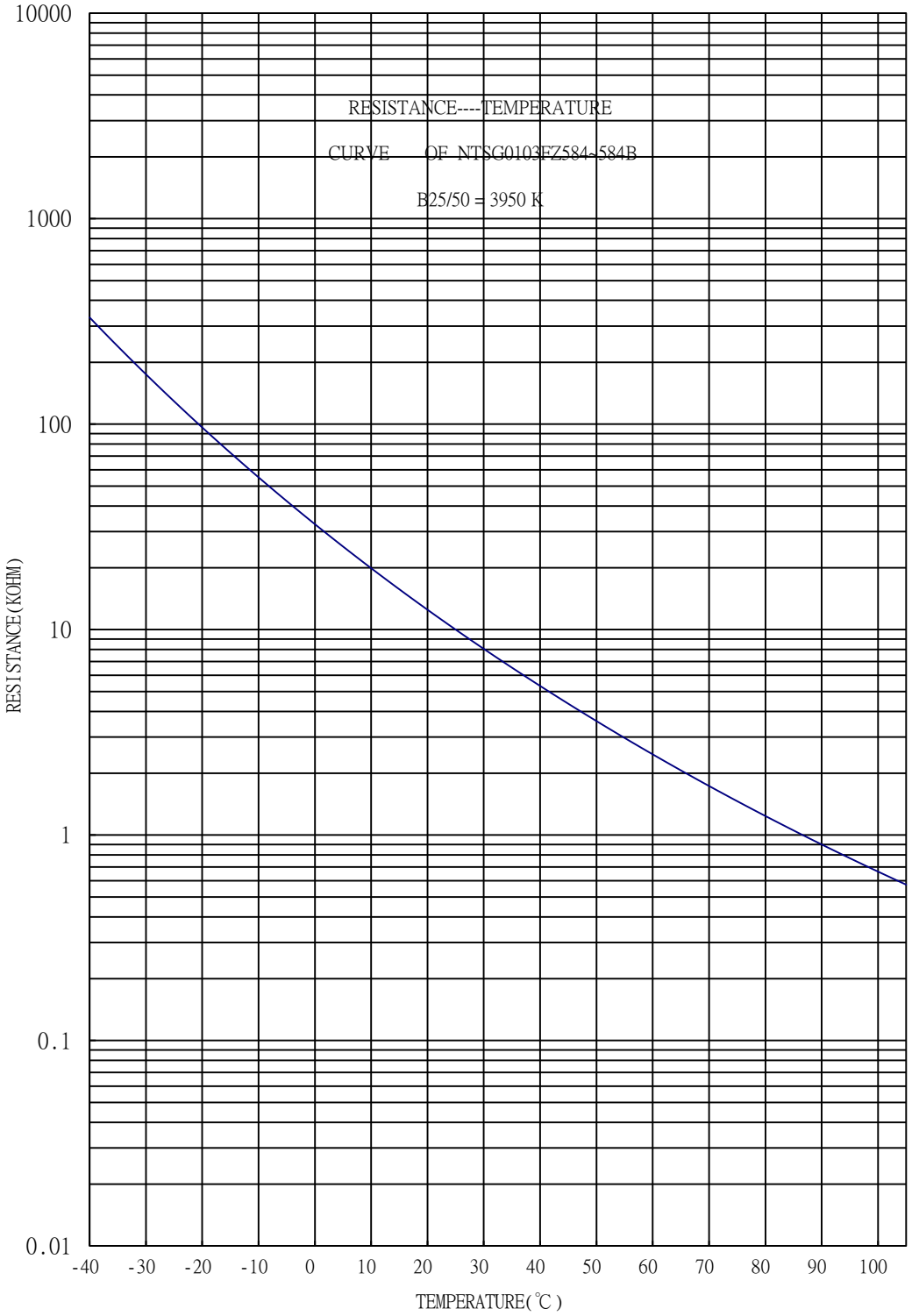
This product is designed for application in an ordinary environment (normal room temperature, humidity and atmospheric pressure).

Do not use under the following conditions because all of these factors can deteriorate the product characteristics or cause failures and burn-out.

1. Corrosive gas or deoxidizing gas (Chlorine gas, Hydrogen sulfide gas, Ammonia gas, Sulfuric acid gas, Nitric oxide gas, etc.)
2. Volatile or flammable gas
3. Dusty conditions
4. Under vacuum, or under high or low pressure
5. Wet or humid locations; soak in the liquid or wash with liquid
6. Places with salt water, oils, chemical liquids or organic solvents and do not use directly with quick-drying glue.
7. Strong vibrations
8. Other places where similar hazardous conditions exist
9. Be sure to provide an appropriate fail-safe function on your product to prevent secondary damages that may be caused by the abnormal function or the failure of our product.

Restriction of Weapon and Military End-Use

Thinking has established and implemented the fundamental policy on none of our product should be used or sold, through any channels, for use in the design, development, production, utilization, maintenance or operation of, or otherwise contribution to any weapons (Weapons of Mass Destruction [nuclear, chemical or biological weapons or missiles] or conventional weapons) or goods or systems specially designed or intended for military end-use or utilization by military end-users.


RESISTANCE----TEMPERATURE
CURVE OF NTSG0103FZ584~584B
B25/50 = 3950 K
10000
1000
100
10
1
0.1
0.01
RESISTANCE(KOHM)
-40
-30
-20
-10
0
10
20
30
40
50
60
70
80
90
100
TEMPERATURE(℃)

R - T Table

Part No. : NTSG0103FZ584~584B

R25=10KΩ ±1%

B25/85 = 3970 K ± 1%

Temperature (℃)	Rmax. (KΩ)	Rnor. (KΩ)	Rmin. (KΩ)	Temperature Tol. (℃)	
-40	341.695	326.719	312.369	-0.73	0.73
-39	320.859	306.988	293.688	-0.70	0.70
-38	300.924	288.098	275.791	-0.68	0.69
-37	281.990	270.145	258.771	-0.66	0.67
-36	264.126	253.195	242.692	-0.64	0.66
-35	247.366	237.282	227.587	-0.63	0.65
-34	231.710	222.408	213.459	-0.63	0.65
-33	217.132	208.550	200.287	-0.62	0.64
-32	203.585	195.663	188.031	-0.61	0.64
-31	191.011	183.695	176.641	-0.61	0.63
-30	179.345	172.583	166.059	-0.61	0.63
-29	168.517	162.263	156.226	-0.61	0.63
-28	158.460	152.672	147.081	-0.60	0.63
-27	149.109	143.749	138.568	-0.60	0.62
-26	140.403	135.437	130.633	-0.60	0.62
-25	132.286	127.683	123.227	-0.59	0.62
-24	124.709	120.439	116.304	-0.59	0.61
-23	117.625	113.664	109.825	-0.58	0.60
-22	110.994	107.317	103.753	-0.58	0.60
-21	104.779	101.366	98.0550	-0.57	0.59
-20	98.9482	95.7798	92.7036	-0.57	0.59
-19	93.4730	90.5309	87.6726	-0.56	0.58
-18	88.3274	85.5952	82.9393	-0.55	0.57
-17	83.4885	80.9512	78.4831	-0.55	0.56
-16	78.9356	76.5792	74.2856	-0.54	0.56
-15	74.6500	72.4615	70.3301	-0.53	0.55
-14	70.6145	68.5820	66.6014	-0.52	0.54
-13	66.8135	64.9260	63.0855	-0.52	0.53
-12	63.2326	61.4798	59.7696	-0.51	0.53
-11	59.8586	58.2309	56.6418	-0.50	0.52
-10	56.6789	55.1675	53.6910	-0.49	0.51
-9	53.6820	52.2786	50.9068	-0.49	0.50
-8	50.8571	49.5540	48.2796	-0.48	0.50
-7	48.1940	46.9842	45.8002	-0.47	0.49
-6	45.6831	44.5600	43.4601	-0.46	0.48
-5	43.3155	42.2728	41.2511	-0.46	0.47
-4	41.0826	40.1147	39.1657	-0.45	0.47
-3	38.9764	38.0780	37.1965	-0.44	0.46
-2	36.9895	36.1556	35.3369	-0.43	0.45
-1	35.1147	34.3407	33.5804	-0.43	0.44
0	33.3452	32.6269	31.9209	-0.42	0.44
1	31.6748	31.0083	30.3528	-0.41	0.43
2	30.0976	29.4791	28.8705	-0.40	0.42
3	28.6079	28.0342	27.4692	-0.40	0.41
4	27.2005	26.6683	26.1439	-0.39	0.41
5	25.8705	25.3769	24.8903	-0.38	0.40
6	24.6132	24.1555	23.7040	-0.37	0.39

7	23.4243	23.0000	22.5812	-0.37	0.38
8	22.2998	21.9065	21.5180	-0.36	0.38
9	21.2357	20.8713	20.5111	-0.35	0.37
10	20.2286	19.8910	19.5572	-0.34	0.36
11	19.2750	18.9624	18.6531	-0.34	0.35
12	18.3718	18.0825	17.7959	-0.33	0.34
13	17.5161	17.2484	16.9831	-0.32	0.34
14	16.7051	16.4575	16.2120	-0.31	0.33
15	15.9363	15.7074	15.4803	-0.31	0.32
16	15.2071	14.9957	14.7857	-0.30	0.31
17	14.5154	14.3202	14.1262	-0.29	0.30
18	13.8590	13.6789	13.4997	-0.28	0.29
19	13.2359	13.0698	12.9045	-0.27	0.29
20	12.6443	12.4913	12.3389	-0.26	0.28
21	12.0823	11.9415	11.8011	-0.26	0.27
22	11.5484	11.4189	11.2897	-0.25	0.26
23	11.0410	10.9221	10.8033	-0.24	0.25
24	10.5587	10.4495	10.3405	-0.23	0.24
25	10.1000	10.0000	9.90000	-0.22	0.23
26	9.67219	9.57224	9.47237	-0.23	0.25
27	9.26480	9.16508	9.06552	-0.24	0.26
28	8.87678	8.77744	8.67834	-0.26	0.27
29	8.50709	8.40827	8.30977	-0.27	0.28
30	8.15479	8.05662	7.95884	-0.28	0.29
31	7.81897	7.72156	7.62461	-0.29	0.30
32	7.49878	7.40224	7.30621	-0.30	0.32
33	7.19343	7.09784	7.00281	-0.31	0.33
34	6.90215	6.80758	6.71364	-0.33	0.34
35	6.62423	6.53076	6.43796	-0.34	0.35
36	6.35899	6.26667	6.17508	-0.35	0.36
37	6.10580	6.01469	5.92435	-0.36	0.38
38	5.86404	5.77418	5.68513	-0.37	0.39
39	5.63316	5.54459	5.45687	-0.39	0.40
40	5.41261	5.32536	5.23899	-0.40	0.41
41	5.20188	5.11597	5.03098	-0.41	0.42
42	5.00048	4.91594	4.83234	-0.42	0.44
43	4.80796	4.72480	4.64261	-0.44	0.45
44	4.62389	4.54212	4.46135	-0.45	0.46
45	4.44785	4.36748	4.28814	-0.46	0.48
46	4.27946	4.20050	4.12258	-0.47	0.49
47	4.11835	4.04079	3.96430	-0.49	0.50
48	3.96416	3.88801	3.81294	-0.50	0.51
49	3.81657	3.74182	3.66817	-0.51	0.53
50	3.67527	3.60191	3.52966	-0.52	0.54
51	3.53995	3.46798	3.39713	-0.54	0.55
52	3.41033	3.33974	3.27028	-0.55	0.57
53	3.28615	3.21692	3.14884	-0.56	0.58
54	3.16715	3.09927	3.03255	-0.58	0.59
55	3.05309	2.98655	2.92117	-0.59	0.61
56	2.94374	2.87853	2.81447	-0.60	0.62
57	2.83889	2.77498	2.71223	-0.62	0.63
58	2.73832	2.67570	2.61425	-0.63	0.65
59	2.64185	2.58049	2.52032	-0.64	0.66

60	2.54927	2.48918	2.43025	-0.66	0.67
61	2.46043	2.40157	2.34388	-0.67	0.69
62	2.37515	2.31750	2.26102	-0.69	0.70
63	2.29327	2.23681	2.18153	-0.70	0.71
64	2.21463	2.15935	2.10524	-0.71	0.73
65	2.13910	2.08498	2.03202	-0.73	0.74
66	2.06654	2.01355	1.96172	-0.74	0.76
67	1.99681	1.94493	1.89421	-0.76	0.77
68	1.92979	1.87901	1.82938	-0.77	0.78
69	1.86537	1.81566	1.76709	-0.78	0.80
70	1.80343	1.75477	1.70725	-0.80	0.81
71	1.74386	1.69623	1.64974	-0.81	0.83
72	1.68656	1.63994	1.59445	-0.83	0.84
73	1.63144	1.58581	1.54131	-0.84	0.85
74	1.57839	1.53374	1.49020	-0.86	0.87
75	1.52734	1.48364	1.44104	-0.87	0.88
76	1.47820	1.43543	1.39376	-0.89	0.90
77	1.43089	1.38903	1.34826	-0.90	0.91
78	1.38533	1.34436	1.30448	-0.92	0.93
79	1.34145	1.30136	1.26234	-0.93	0.94
80	1.29918	1.25994	1.22177	-0.95	0.96
81	1.25845	1.22005	1.18271	-0.96	0.97
82	1.21920	1.18163	1.14509	-0.98	0.99
83	1.18138	1.14460	1.10886	-0.99	1.00
84	1.14491	1.10892	1.07395	-1.01	1.02
85	1.10975	1.07453	1.04031	-1.02	1.03
86	1.07585	1.04137	1.00790	-1.04	1.05
87	1.04315	1.00941	0.97666	-1.06	1.06
88	1.01161	0.97858	0.94654	-1.07	1.08
89	0.98117	0.94885	0.91749	-1.09	1.09
90	0.95180	0.92016	0.88948	-1.10	1.11
91	0.92346	0.89249	0.86247	-1.12	1.12
92	0.89610	0.86578	0.83641	-1.14	1.14
93	0.86968	0.84001	0.81126	-1.15	1.16
94	0.84418	0.81513	0.78700	-1.17	1.17
95	0.81954	0.79110	0.76357	-1.18	1.19
96	0.79575	0.76791	0.74096	-1.20	1.20
97	0.77277	0.74551	0.71914	-1.22	1.22
98	0.75056	0.72387	0.69806	-1.23	1.23
99	0.72910	0.70296	0.67770	-1.25	1.25
100	0.70835	0.68276	0.65803	-1.27	1.27
101	0.68830	0.66324	0.63904	-1.28	1.28
102	0.66891	0.64438	0.62068	-1.30	1.30
103	0.65017	0.62614	0.60294	-1.32	1.32
104	0.63204	0.60851	0.58579	-1.33	1.33
105	0.61451	0.59146	0.56922	-1.35	1.35

THINKING ELECTRONIC INDUSTRIAL CO.,LTD

THINKING P/N:NTSG0103FZ584~584B

Grade of waterproof

(1) IP67