

10K B3950 1%

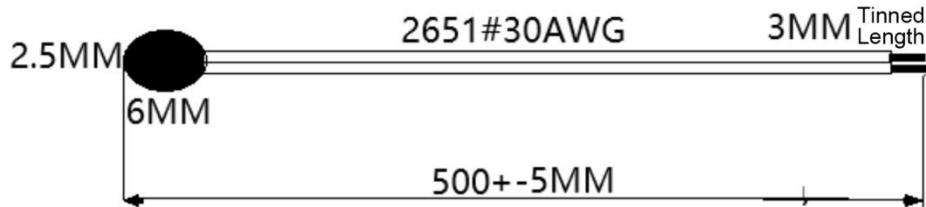
NTC Thermistor

PRODUCT MANUAL

Striving for the Bright Future of Precision Optoelectronic Measurement.

Droplet-Shaped NTC Thermistor – Epoxy-encapsulated, small form factor, high precision, and fast thermal response. (**Housing:** epoxy resin; **Leads:** 30 AWG 265 black parallel wire; **Termination:** tinned.)

01 Outline and Dimensions



02 Specifications

Parameter	Value
Nominal Zero-Power Resistance R_{25}	$10 \pm 1\% \text{ K}\Omega$
$B_{25/50}$ Value	$3950 \pm 1\% \text{ K}$
Dissipation Constant (in air)	$2.0 \text{ mW}/^\circ\text{C}$
Thermal Time Constant (in air)	$\leq 16 \text{ s}$
Operating Temperature Range	$-25 \sim +105^\circ\text{C}$
Insulation Resistance	$\geq 500 \text{ M}\Omega$
Dielectric Strength	700 V/AC

03 Resistance-Temperature Table

$R_{25}=10\text{K}\Omega$ Tolerance: $\pm 1\%$				$B_{25/50}=3950\text{K}$ Tolerance: $\pm 1\%$			
Temperature($^\circ\text{C}$)	Resistance($\text{K}\Omega$)			Temperature($^\circ\text{C}$)	Resistance($\text{K}\Omega$)		
	Min.	Typ.	Max.		Min.	Typ.	Max.
-55	1024.254	1034.600	1044.946	36	6.191	6.254	6.317
-54	949.416	959.006	968.596	37	5.941	6.001	6.061
-53	880.557	889.452	898.347	38	5.703	5.761	5.819
-52	817.165	825.419	833.673	39	5.476	5.531	5.586
-51	758.770	766.434	774.098	40	5.258	5.311	5.364

-50	704.945	712.066	719.187	41	5.051	5.102	5.153
-49	655.307	661.926	668.545	42	4.853	4.902	4.951
-48	609.499	615.656	621.813	43	4.663	4.710	4.757
-47	567.205	572.934	578.663	44	4.483	4.528	4.573
-46	528.131	533.466	538.801	45	4.309	4.353	4.397
-45	492.013	496.983	501.953	46	4.144	4.186	4.228
-44	458.608	463.240	467.872	47	3.986	4.026	4.066
-43	427.695	432.015	436.335	48	3.835	3.874	3.913
-42	399.073	403.104	407.135	49	3.691	3.728	3.765
-41	372.557	376.320	380.083	50	3.552	3.588	3.624
-40	347.980	351.495	355.010	51	3.419	3.454	3.489
-39	325.187	328.472	331.757	52	3.293	3.326	3.359
-38	304.039	307.110	310.181	53	3.171	3.203	3.235
-37	284.406	287.279	290.152	54	3.054	3.085	3.116
-36	266.170	268.859	271.548	55	2.943	2.973	3.003
-35	249.224	251.741	254.258	56	2.836	2.865	2.894
-34	233.468	235.826	238.184	57	2.733	2.761	2.789
-33	218.811	221.021	223.231	58	2.635	2.662	2.689
-32	205.170	207.242	209.314	59	2.541	2.567	2.593
-31	192.468	194.412	196.356	60	2.451	2.476	2.501
-30	180.635	182.460	184.285	61	2.364	2.388	2.412
-29	169.607	171.320	173.033	62	2.281	2.304	2.327
-28	159.323	160.932	162.541	63	2.201	2.223	2.245
-27	149.729	151.241	152.753	64	2.125	2.146	2.167
-26	140.774	142.196	143.618	65	2.051	2.072	2.093
-25	132.413	133.750	135.088	66	1.980	2.000	2.020
-24	124.600	125.859	127.118	67	1.913	1.932	1.951
-23	117.300	118.485	119.670	68	1.847	1.866	1.885
-22	110.473	111.589	112.705	69	1.785	1.803	1.821
-21	104.088	105.139	106.190	70	1.725	1.742	1.759
-20	98.111	99.102	100.093	71	1.667	1.684	1.701
-19	92.516	93.450	94.385	72	1.611	1.627	1.643

-18	87.274	88.156	89.038	73	1.557	1.573	1.589
-17	82.363	83.195	84.027	74	1.506	1.521	1.536
-16	77.759	78.544	79.329	75	1.456	1.471	1.486
-15	73.441	74.183	74.925	76	1.409	1.423	1.437
-14	69.390	70.091	70.792	77	1.363	1.377	1.391
-13	65.588	66.250	66.913	78	1.319	1.332	1.345
-12	62.017	62.643	63.269	79	1.276	1.289	1.302
-11	58.662	59.255	59.848	80	1.236	1.248	1.260
-10	55.510	56.071	56.632	81	1.196	1.208	1.220
-9	52.547	53.078	53.609	82	1.158	1.170	1.182
-8	49.760	50.263	50.766	83	1.122	1.133	1.144
-7	47.138	47.614	48.090	84	1.086	1.097	1.108
-6	44.670	45.121	45.572	85	1.052	1.063	1.074
-5	42.346	42.774	43.202	86	1.020	1.030	1.040
-4	40.157	40.563	40.969	87	0.988	0.998	1.008
-3	38.095	38.480	38.865	88	0.958	0.968	0.978
-2	36.152	36.517	36.882	89	0.929	0.938	0.947
-1	34.318	34.665	35.012	90	0.900	0.909	0.918
0	32.590	32.919	33.248	91	0.873	0.882	0.891
1	30.957	31.270	31.583	92	0.846	0.855	0.864
2	29.418	29.715	30.012	93	0.821	0.829	0.837
3	27.964	28.246	28.528	94	0.797	0.805	0.813
4	26.589	26.858	27.127	95	0.773	0.781	0.789
5	25.292	25.547	25.802	96	0.750	0.758	0.766
6	24.064	24.307	24.550	97	0.728	0.735	0.742
7	22.904	23.135	23.366	98	0.707	0.714	0.721
8	21.806	22.026	22.246	99	0.686	0.693	0.700
9	20.767	20.977	21.187	100	0.666	0.673	0.680
10	19.787	19.987	20.187	101	0.646	0.653	0.660
11	18.854	19.044	19.234	102	0.629	0.635	0.641
12	17.972	18.154	18.336	103	0.610	0.616	0.622
13	17.137	17.310	17.483	104	0.593	0.599	0.605

14	16.345	16.510	16.675	105	0.576	0.582	0.588
15	15.594	15.752	15.910	106	0.559	0.565	0.571
16	14.884	15.034	15.184	107	0.545	0.550	0.556
17	14.208	14.352	14.496	108	0.529	0.534	0.539
18	13.568	13.705	13.842	109	0.514	0.519	0.524
19	12.959	13.090	13.221	110	0.500	0.505	0.510
20	12.382	12.507	12.632	111	0.486	0.491	0.496
21	11.833	11.953	12.073	112	0.473	0.478	0.483
22	11.313	11.427	11.541	113	0.460	0.465	0.470
23	10.818	10.927	11.036	114	0.447	0.452	0.457
24	10.347	10.452	10.557	115	0.436	0.440	0.444
25	9.900	10.000	10.100	116	0.424	0.428	0.432
26	9.474	9.570	9.666	117	0.412	0.416	0.420
27	9.069	9.161	9.253	118	0.401	0.405	0.409
28	8.683	8.771	8.859	119	0.391	0.395	0.399
29	8.317	8.401	8.485	120	0.380	0.384	0.388
30	7.968	8.048	8.128	121	0.370	0.374	0.378
31	7.635	7.712	7.789	122	0.360	0.364	0.368
32	7.317	7.391	7.465	123	0.351	0.355	0.359
33	7.015	7.086	7.157	124	0.342	0.345	0.348
34	6.727	6.795	6.863	125	0.334	0.337	0.340
35	6.453	6.518	6.583				

Version Change Log

Version	Change description	Change date	Reviewed by
1.0.0	Initial version	2026/9/1	WYR

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Innovation Creates Value;
Sharing Brings People Together;**

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