

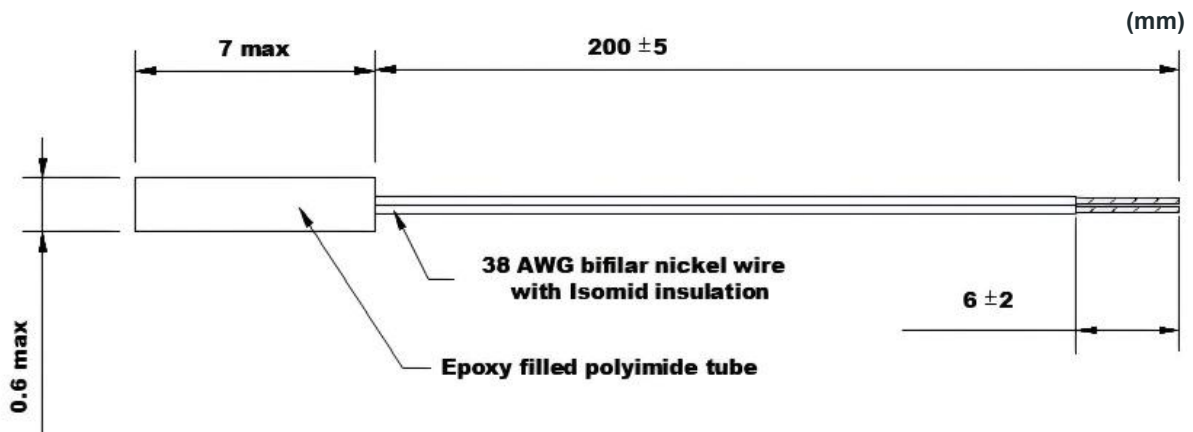
0.6mm 10K B3977 1%

NTC Thermistor

PRODUCT MANUAL

Striving for the Bright Future of Precision Optoelectronic Measurement.

01 Outline and Dimensions



Construction / Materials: Epoxy-filled polyimide tubing housing with twisted-pair nickel lead wires.

02 Specifications

Parameter	Value
Nominal Zero-Power Resistance R_{25}	$10 \pm 1\% K\Omega$
$B_{25/50}$ Value	$3977 \pm 1\% K$
Dissipation Constant	$\geq 0.5 mW/^{\circ}C$
Thermal Time Constant	$\leq 6.5 S$
Temperature Measurement Range	$-25 \sim +125^{\circ}C$
Operating Temperature Range	$-40 \sim +300^{\circ}C$
Insulation Resistance	$\geq 10 M\Omega$

03 Resistance-Temperature Table

$R_{25}=10K\Omega$ Tolerance: $\pm 1\%$				$B_{25/50}=3977K$ Tolerance: $\pm 1\%$			
Temperature($^{\circ}C$)	Resistance($K\Omega$)			Temperature($^{\circ}C$)	Resistance($K\Omega$)		
	Min.	Typ.	Max.		Min.	Typ.	Max.
-30	186.3613	179.2666	172.4247	48	3.9508	3.8748	3.7999
-29	174.9608	168.4053	162.0793	49	3.8030	3.7283	3.6548
-28	164.3317	158.2726	152.4218	50	3.6614	3.5882	3.5161

-27	154.4170	148.8151	143.4022	51	3.5258	3.4540	3.3833
-26	145.1643	139.9837	134.9746	52	3.3960	3.3255	3.2562
-25	136.5254	131.7332	127.0964	53	3.2715	3.2025	3.1346
-24	128.4558	124.0216	119.7285	54	3.1523	3.0846	3.0181
-23	120.9146	116.8107	112.8348	55	3.0380	2.9717	2.9065
-22	113.8640	110.0648	106.3818	56	2.9285	2.8635	2.7996
-21	107.2691	103.7512	100.3387	57	2.8234	2.7597	2.6972
-20	101.0977	97.8396	94.6771	58	2.7227	2.6603	2.5990
-19	95.3201	92.3020	89.3705	59	2.6260	2.5649	2.5049
-18	89.9088	87.1124	84.3946	60	2.5333	2.4734	2.4147
-17	84.8385	82.2471	79.7268	61	2.4443	2.3856	2.3282
-16	80.0856	77.6837	75.3463	62	2.3589	2.3014	2.2452
-15	75.6284	73.4018	71.2336	63	2.2768	2.2206	2.1656
-14	71.4468	69.3823	67.3708	64	2.1981	2.1431	2.0892
-13	67.5220	65.6077	63.7412	65	2.1224	2.0686	2.0159
-12	63.8370	62.0616	60.3295	66	2.0498	1.9970	1.9455
-11	60.3755	58.7288	57.1212	67	1.9800	1.9283	1.8779
-10	57.1228	55.5953	54.1032	68	1.9129	1.8623	1.8130
-9	54.0651	52.6480	51.2629	69	1.8484	1.7989	1.7507
-8	51.1895	49.8747	48.5889	70	1.7864	1.7380	1.6908
-7	48.4842	47.2643	46.0705	71	1.7267	1.6794	1.6332
-6	45.9381	44.8062	43.6978	72	1.6694	1.6231	1.5779
-5	43.5409	42.4906	41.4615	73	1.6142	1.5689	1.5247
-4	41.2831	40.3086	39.3531	74	1.5612	1.5168	1.4736
-3	39.1559	38.2516	37.3644	75	1.5101	1.4667	1.4245
-2	37.1508	36.3117	35.4880	76	1.4610	1.4185	1.3772
-1	35.2603	34.4817	33.7169	77	1.4137	1.3722	1.3317
0	33.4771	32.7547	32.0447	78	1.3681	1.3275	1.2880
1	31.7945	31.1243	30.4652	79	1.3243	1.2845	1.2458
2	30.2064	29.5847	28.9728	80	1.2820	1.2431	1.2053
3	28.7068	28.1301	27.5623	81	1.2413	1.2033	1.1663
4	27.2904	26.7556	26.2286	82	1.2021	1.1649	1.1287

5	25.9521	25.4562	24.9672	83	1.1644	1.1279	1.0926
6	24.6872	24.2274	23.7738	84	1.1279	1.0923	1.0577
7	23.4912	23.0650	22.6443	85	1.0928	1.0580	1.0241
8	22.3599	21.9650	21.5750	86	1.0590	1.0249	0.9918
9	21.2897	20.9239	20.5622	87	1.0264	0.9930	0.9606
10	20.2768	19.9380	19.6028	88	0.9949	0.9623	0.9306
11	19.3178	19.0041	18.6937	89	0.9646	0.9326	0.9016
12	18.4096	18.1193	17.8318	90	0.9353	0.9040	0.8737
13	17.5493	17.2807	17.0146	91	0.9070	0.8764	0.8468
14	16.7340	16.4857	16.2394	92	0.8797	0.8498	0.8208
15	15.9612	15.7317	15.5040	93	0.8534	0.8241	0.7958
16	15.2284	15.0164	14.8059	94	0.8280	0.7994	0.7716
17	14.5333	14.3376	14.1432	95	0.8035	0.7754	0.7483
18	13.8738	13.6933	13.5139	96	0.7798	0.7523	0.7258
19	13.2479	13.0816	12.9160	97	0.7569	0.7300	0.7041
20	12.6537	12.5005	12.3479	98	0.7348	0.7085	0.6831
21	12.0895	11.9485	11.8080	99	0.7134	0.6877	0.6628
22	11.5535	11.4239	11.2946	100	0.6928	0.6676	0.6433
23	11.0442	10.9252	10.8064	101	0.6728	0.6482	0.6244
24	10.5602	10.4510	10.3419	102	0.6536	0.6295	0.6062
25	10.1000	10.0000	9.9000	103	0.6349	0.6113	0.5885
26	9.6709	9.5709	9.4710	104	0.6169	0.5938	0.5715
27	9.2623	9.1626	9.0630	105	0.5995	0.5769	0.5550
28	8.8732	8.7738	8.6747	106	0.5826	0.5605	0.5391
29	8.5025	8.4037	8.3052	107	0.5663	0.5447	0.5237
30	8.1494	8.0512	7.9534	108	0.5506	0.5293	0.5089
31	7.8128	7.7154	7.6184	109	0.5353	0.5145	0.4945
32	7.4919	7.3953	7.2993	110	0.5206	0.5002	0.4806
33	7.1859	7.0903	6.9953	111	0.5063	0.4863	0.4671
34	6.8940	6.7995	6.7056	112	0.4924	0.4729	0.4541
35	6.6156	6.5221	6.4294	113	0.4791	0.4599	0.4415
36	6.3498	6.2576	6.1660	114	0.4661	0.4474	0.4293

37	6.0962	6.0051	5.9148	115	0.4535	0.4352	0.4175
38	5.8540	5.7642	5.6752	116	0.4414	0.4234	0.4061
39	5.6227	5.5342	5.4465	117	0.4296	0.4120	0.3951
40	5.4018	5.3146	5.2283	118	0.4182	0.4009	0.3844
41	5.1907	5.1049	5.0199	119	0.4071	0.3902	0.3740
42	4.9890	4.9045	4.8210	120	0.3964	0.3799	0.3640
43	4.7961	4.7130	4.6309	121	0.3860	0.3698	0.3542
44	4.6117	4.5300	4.4494	122	0.3760	0.3601	0.3448
45	4.4354	4.3551	4.2759	123	0.3662	0.3506	0.3357
46	4.2667	4.1878	4.1100	124	0.3568	0.3415	0.3269
47	4.1053	4.0278	3.9515	125	0.3476	0.3326	0.3183

Version Change Log

Version	Change description	Change date	Reviewed by
1.0.0	Initial version	2026/9/2	WYR

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Innovation Creates Value;
Sharing Brings People Together;**

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cooperation with you!**