

102AT(現行品)と102AT(新規品)の温度誤差確認結果

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SEMITEC株式会社
サーミスタ・デバイス技術課
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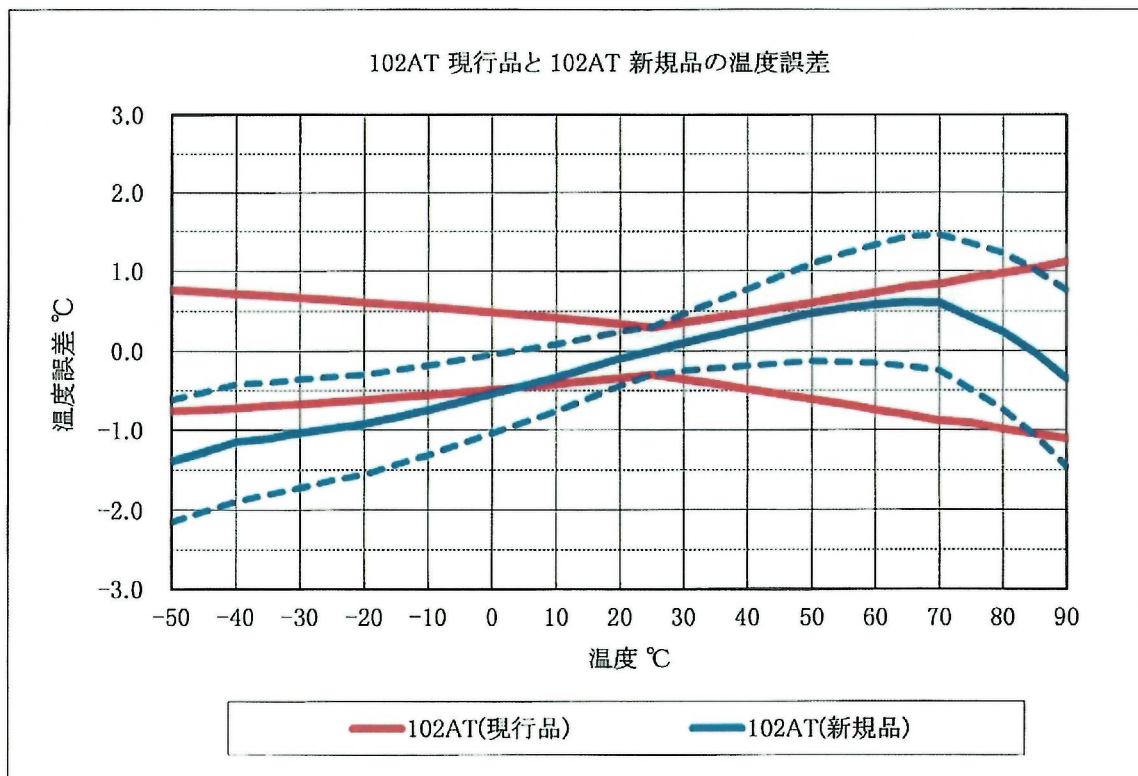
102AT(現行品)に対する102AT(新規品)サーミスタの温度誤差グラフを下記に記します。

102AT(現行品) 特性 : R25 1.0k Ω $\pm$ 1%、B25/85 3100K $\pm$ 1%

102AT(新規品) 特性 : R25 1.0k Ω $\pm$ 1%、B25/85 3100K $\pm$ 1%

- 2020年11月以降は新規品を取り扱っております。

使用温度範囲 -50℃～90℃の範囲での中心値の温度誤差は、**-1.39～0.62℃**と推定します。



102AT-2 (新規品)TEMPERATURE VS RESISTANCE CHARACTERISTICS [ITS-90]

Resistance 1.00 k ohms at 25 Degree C
 Resistance Tolerance $\pm 1 \%$
 B Value 3 100 K at 25/85 Degree C
 B Value Tolerance $\pm 1 \%$



Temp. (deg C)	Rmax. (kohms)	Rst. (kohms)	Rmin. (kohms)	Tolerance (deg C)
-50	27.39	26.24	25.14	-0.8 + 0.8
-49	25.89	24.81	23.78	-0.8 + 0.8
-48	24.47	23.47	22.51	-0.8 + 0.8
-47	23.15	22.22	21.32	-0.8 + 0.8
-46	21.91	21.04	20.20	-0.8 + 0.8
-45	20.74	19.93	19.14	-0.8 + 0.8
-44	19.65	18.89	18.15	-0.8 + 0.8
-43	18.62	17.91	17.22	-0.8 + 0.8
-42	17.66	16.99	16.35	-0.8 + 0.8
-41	16.75	16.12	15.52	-0.8 + 0.8
-40	15.90	15.31	14.74	-0.8 + 0.8
-39	15.08	14.54	14.00	-0.8 + 0.8
-38	14.32	13.81	13.31	-0.8 + 0.8
-37	13.60	13.12	12.65	-0.7 + 0.8
-36	12.92	12.47	12.03	-0.7 + 0.8
-35	12.28	11.86	11.45	-0.7 + 0.7
-34	11.68	11.28	10.90	-0.7 + 0.7
-33	11.11	10.74	10.38	-0.7 + 0.7
-32	10.57	10.22	9.889	-0.7 + 0.7
-31	10.07	9.739	9.424	-0.7 + 0.7
-30	9.585	9.281	8.985	-0.7 + 0.7
-29	9.130	8.844	8.566	-0.7 + 0.7
-28	8.699	8.431	8.170	-0.7 + 0.7
-27	8.292	8.040	7.795	-0.7 + 0.7
-26	7.907	7.670	7.440	-0.7 + 0.7
-25	7.542	7.320	7.103	-0.7 + 0.7
-24	7.198	6.989	6.785	-0.7 + 0.7
-23	6.871	6.675	6.483	-0.7 + 0.7
-22	6.562	6.377	6.197	-0.7 + 0.7
-21	6.269	6.095	5.926	-0.7 + 0.7
-20	5.991	5.828	5.668	-0.7 + 0.7
-19	5.724	5.570	5.420	-0.7 + 0.7
-18	5.470	5.326	5.184	-0.6 + 0.7
-17	5.230	5.094	4.961	-0.6 + 0.6
-16	5.002	4.874	4.749	-0.6 + 0.6
-15	4.785	4.665	4.547	-0.6 + 0.6
-14	4.580	4.466	4.356	-0.6 + 0.6
-13	4.384	4.278	4.173	-0.6 + 0.6
-12	4.199	4.098	4.000	-0.6 + 0.6
-11	4.022	3.928	3.835	-0.6 + 0.6
-10	3.855	3.766	3.679	-0.6 + 0.6
-9	3.694	3.610	3.528	-0.6 + 0.6
-8	3.540	3.461	3.384	-0.6 + 0.6
-7	3.394	3.320	3.247	-0.6 + 0.6
-6	3.255	3.186	3.117	-0.6 + 0.6
-5	3.123	3.057	2.993	-0.6 + 0.6
-4	2.997	2.935	2.874	-0.6 + 0.6
-3	2.877	2.819	2.762	-0.6 + 0.6
-2	2.763	2.708	2.654	-0.5 + 0.6
-1	2.654	2.602	2.551	-0.5 + 0.5
0	2.550	2.501	2.453	-0.5 + 0.5

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Resistance Tolerance $\pm 1\%$

B Value 3 100 K at 25/85 Degree C

B Value Tolerance $\pm 1\%$ 

Temp. (deg C)	Rmax. (kohms)	Rst. (kohms)	Rmin. (kohms)	Tolerance (deg C)	
0	2.550	2.501	2.453	-0.5	+ 0.5
1	2.450	2.404	2.359	-0.5	+ 0.5
2	2.355	2.311	2.269	-0.5	+ 0.5
3	2.264	2.223	2.183	-0.5	+ 0.5
4	2.177	2.138	2.101	-0.5	+ 0.5
5	2.094	2.058	2.022	-0.5	+ 0.5
6	2.015	1.981	1.947	-0.5	+ 0.5
7	1.939	1.907	1.875	-0.5	+ 0.5
8	1.867	1.836	1.807	-0.5	+ 0.5
9	1.797	1.769	1.741	-0.5	+ 0.5
10	1.731	1.705	1.678	-0.5	+ 0.5
11	1.667	1.642	1.617	-0.5	+ 0.5
12	1.606	1.583	1.559	-0.4	+ 0.4
13	1.548	1.526	1.504	-0.4	+ 0.4
14	1.492	1.471	1.450	-0.4	+ 0.4
15	1.438	1.419	1.399	-0.4	+ 0.4
16	1.387	1.369	1.350	-0.4	+ 0.4
17	1.338	1.321	1.303	-0.4	+ 0.4
18	1.291	1.275	1.258	-0.4	+ 0.4
19	1.246	1.231	1.215	-0.4	+ 0.4
20	1.203	1.188	1.174	-0.4	+ 0.4
21	1.161	1.147	1.134	-0.4	+ 0.4
22	1.121	1.108	1.096	-0.4	+ 0.4
23	1.083	1.071	1.059	-0.4	+ 0.4
24	1.046	1.035	1.023	-0.4	+ 0.4
25	1.010	1.000	0.9900	-0.3	+ 0.3
26	0.9767	0.9666	0.9566	-0.4	+ 0.4
27	0.9446	0.9345	0.9245	-0.4	+ 0.4
28	0.9137	0.9037	0.8937	-0.4	+ 0.4
29	0.8841	0.8741	0.8642	-0.4	+ 0.4
30	0.8556	0.8457	0.8358	-0.4	+ 0.4
31	0.8281	0.8182	0.8083	-0.4	+ 0.4
32	0.8016	0.7917	0.7820	-0.4	+ 0.4
33	0.7761	0.7663	0.7566	-0.4	+ 0.4
34	0.7516	0.7419	0.7322	-0.4	+ 0.5
35	0.7280	0.7184	0.7088	-0.5	+ 0.5
36	0.7053	0.6957	0.6862	-0.5	+ 0.5
37	0.6834	0.6740	0.6645	-0.5	+ 0.5
38	0.6624	0.6530	0.6437	-0.5	+ 0.5
39	0.6421	0.6328	0.6236	-0.5	+ 0.5
40	0.6226	0.6134	0.6042	-0.5	+ 0.5
41	0.6036	0.5945	0.5854	-0.5	+ 0.5
42	0.5853	0.5762	0.5673	-0.5	+ 0.6
43	0.5676	0.5587	0.5498	-0.6	+ 0.6
44	0.5506	0.5418	0.5330	-0.6	+ 0.6
45	0.5342	0.5255	0.5168	-0.6	+ 0.6
46	0.5184	0.5098	0.5012	-0.6	+ 0.6
47	0.5031	0.4946	0.4862	-0.6	+ 0.6
48	0.4884	0.4800	0.4717	-0.6	+ 0.6
49	0.4742	0.4659	0.4577	-0.6	+ 0.6
50	0.4605	0.4523	0.4442	-0.7	+ 0.7

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Temp. (deg C)	Rmax. (kohms)	Rst. (kohms)	Rmin. (kohms)	Tolerance (deg C)
50	0.4605	0.4523	0.4442	-0.7 + 0.7
51	0.4472	0.4391	0.4311	-0.7 + 0.7
52	0.4344	0.4264	0.4185	-0.7 + 0.7
53	0.4220	0.4141	0.4063	-0.7 + 0.7
54	0.4100	0.4022	0.3945	-0.7 + 0.7
55	0.3984	0.3907	0.3831	-0.7 + 0.7
56	0.3872	0.3797	0.3722	-0.7 + 0.7
57	0.3764	0.3690	0.3616	-0.7 + 0.8
58	0.3660	0.3586	0.3514	-0.8 + 0.8
59	0.3559	0.3487	0.3415	-0.8 + 0.8
60	0.3462	0.3390	0.3320	-0.8 + 0.8
61	0.3367	0.3296	0.3227	-0.8 + 0.8
62	0.3275	0.3205	0.3137	-0.8 + 0.8
63	0.3186	0.3117	0.3050	-0.8 + 0.8
64	0.3100	0.3032	0.2966	-0.8 + 0.8
65	0.3017	0.2950	0.2885	-0.9 + 0.9
66	0.2936	0.2871	0.2806	-0.9 + 0.9
67	0.2859	0.2794	0.2730	-0.9 + 0.9
68	0.2783	0.2720	0.2657	-0.9 + 0.9
69	0.2710	0.2648	0.2586	-0.9 + 0.9
70	0.2640	0.2578	0.2517	-0.9 + 0.9
71	0.2571	0.2510	0.2450	-0.9 + 0.9
72	0.2504	0.2444	0.2385	-1.0 + 1.0
73	0.2439	0.2380	0.2322	-1.0 + 1.0
74	0.2377	0.2319	0.2262	-1.0 + 1.0
75	0.2316	0.2259	0.2203	-1.0 + 1.0
76	0.2257	0.2201	0.2146	-1.0 + 1.0
77	0.2200	0.2145	0.2090	-1.0 + 1.0
78	0.2145	0.2090	0.2037	-1.0 + 1.1
79	0.2091	0.2038	0.1985	-1.1 + 1.1
80	0.2040	0.1986	0.1935	-1.1 + 1.1
81	0.1989	0.1937	0.1886	-1.1 + 1.1
82	0.1940	0.1888	0.1838	-1.1 + 1.1
83	0.1892	0.1841	0.1792	-1.1 + 1.1
84	0.1846	0.1796	0.1747	-1.1 + 1.1
85	0.1801	0.1752	0.1704	-1.2 + 1.2
86	0.1757	0.1709	0.1662	-1.2 + 1.2
87	0.1715	0.1667	0.1621	-1.2 + 1.2
88	0.1674	0.1627	0.1581	-1.2 + 1.2
89	0.1634	0.1588	0.1543	-1.2 + 1.2
90	0.1595	0.1550	0.1505	-1.2 + 1.2