Specification of Glass NTC Thermistor

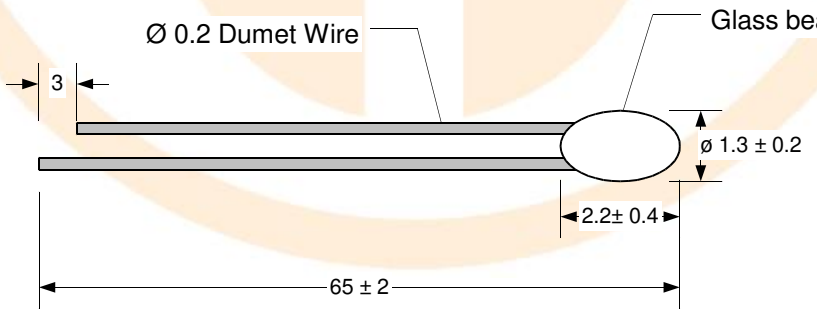
PART NUMBER: **TT2-100KC3H-7**
No. of pages: 4

Date: **24.09.2015**
Revision: **00**

FEATURES:

Sensing Element	Glass NTC Thermistor
No-load resistance at 25°C	100 000 Ω
Tolerances at 25°C	± 1%
Beta(25/85) Constant	4066K ±2%
Operating temperature range	-40°C ÷ 300°C
Dissipation constant	0.7~1.2mW/°C (min, in air)
Thermal time constant	3.5~6.5sec (max, in still air)
RoHS Compatible	**YES**

DRAWING:



UNITS: [mm]

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TEWA TEMPERATURE SENSORS

HIGH PRECISION NTC THERMISTORS AND TEMPERATURE SENSORS

PART NUMBER: **TT2-100KC3H-7**

R/T CHARACTERISTIC:

T(℃)	Rmin(kΩ)	Rcent(kΩ)	Rmax(kΩ)	DR(%)	DT(℃)
-40	2972.9	3218.9	3484.8	8.26%	1.21
-39	2790.2	3017.1	3262.1	8.12%	1.20
-38	2619.82	2829.2	3055.1	7.98%	1.19
-37	2460.99	2654.33	2862.56	7.85%	1.17
-36	2312.83	2491.36	2683.41	7.71%	1.16
-35	2174.53	2339.45	2516.62	7.57%	1.15
-34	2045.39	2197.76	2361.25	7.44%	1.14
-33	1924.72	2065.54	2216.44	7.31%	1.13
-32	1811.93	1942.10	2081.41	7.17%	1.11
-31	1706.44	1826.80	1955.44	7.04%	1.10
-30	1607.74	1719.04	1837.86	6.91%	1.09
-29	1515.34	1618.29	1728.06	6.78%	1.08
-28	1428.81	1524.05	1625.48	6.66%	1.06
-27	1347.74	1435.86	1529.59	6.53%	1.05
-26	1271.74	1353.29	1439.93	6.40%	1.04
-25	1200.48	1275.95	1356.04	6.28%	1.03
-24	1133.62	1203.48	1277.53	6.15%	1.01
-23	1070.87	1135.55	1204.01	6.03%	1.00
-22	1011.95	1071.83	1135.14	5.91%	0.99
-21	956.61	1012.06	1070.61	5.79%	0.97
-20	904.61	955.95	1010.10	5.66%	0.96
-19	855.72	903.26	953.35	5.55%	0.94
-18	809.75	853.78	900.10	5.43%	0.93
-17	766.51	807.27	850.12	5.31%	0.92
-16	725.81	763.56	803.19	5.19%	0.90
-15	687.49	722.45	759.11	5.07%	0.89
-14	651.41	683.78	717.69	4.96%	0.87
-13	617.41	647.38	678.74	4.84%	0.86
-12	585.37	613.12	642.12	4.73%	0.85
-11	555.16	580.86	607.67	4.62%	0.83
-10	526.68	550.46	575.26	4.50%	0.82
-9	499.81	521.81	544.74	4.39%	0.80
-8	474.44	494.81	516.00	4.28%	0.79
-7	450.50	469.35	488.93	4.17%	0.77
-6	427.90	445.33	463.42	4.06%	0.76
-5	406.54	422.66	439.37	3.95%	0.74
-4	386.36	401.26	416.70	3.85%	0.72
-3	367.29	381.06	395.31	3.74%	0.71
-2	349.26	361.98	375.13	3.63%	0.69
-1	332.21	343.96	356.08	3.53%	0.68
0	316.07	326.92	338.10	3.42%	0.66
1	300.80	310.81	321.12	3.32%	0.65
2	286.35	295.58	305.08	3.21%	0.63
3	272.67	281.17	289.92	3.11%	0.61
4	259.70	267.54	275.59	3.01%	0.60
5	247.42	254.64	262.04	2.91%	0.58
6	235.79	242.42	249.22	2.80%	0.56
7	224.76	230.86	237.10	2.70%	0.55
8	214.30	219.90	225.63	2.60%	0.53
9	204.38	209.52	214.77	2.51%	0.51
10	194.966	199.678	204.483	2.41%	0.50
11	186.035	190.349	194.743	2.31%	0.48
12	177.558	181.503	185.516	2.21%	0.46
13	169.510	173.111	176.772	2.11%	0.44
14	161.866	165.150	168.483	2.02%	0.43
15	154.605	157.594	160.625	1.92%	0.41
16	147.706	150.422	153.171	1.83%	0.39
17	141.150	143.611	146.101	1.73%	0.37
18	134.916	137.143	139.392	1.64%	0.35
19	128.989	130.998	133.024	1.55%	0.34
20	123.352	125.158	126.979	1.45%	0.32

T(℃)	Rmin(kΩ)	Rcent(kΩ)	Rmax(kΩ)	DR(%)	DT(℃)
21	117.989	119.608	121.238	1.36%	0.30
22	112.885	114.332	115.785	1.27%	0.28
23	108.028	109.314	110.604	1.18%	0.26
24	103.404	104.541	105.680	1.09%	0.24
25	99.000	100.000	101.000	1.00%	0.23
26	94.638	95.679	96.721	1.09%	0.25
27	90.490	91.565	92.644	1.18%	0.27
28	86.544	87.649	88.759	1.27%	0.29
29	82.790	83.920	85.056	1.35%	0.31
30	79.216	80.367	81.526	1.44%	0.34
31	75.815	76.982	78.160	1.53%	0.36
32	72.576	73.757	74.949	1.62%	0.38
33	69.492	70.682	71.886	1.70%	0.40
34	66.553	67.751	68.963	1.79%	0.43
35	63.754	64.956	66.174	1.88%	0.45
36	61.085	62.289	63.511	1.96%	0.47
37	58.542	59.745	60.968	2.05%	0.50
38	56.117	57.318	58.539	2.13%	0.52
39	53.804	55.001	56.219	2.21%	0.54
40	51.597	52.789	54.002	2.30%	0.57
41	49.492	50.677	51.884	2.38%	0.59
42	47.483	48.659	49.859	2.47%	0.62
43	45.566	46.732	47.923	2.55%	0.64
44	43.735	44.890	46.071	2.63%	0.66
45	41.987	43.130	44.300	2.71%	0.69
46	40.317	41.448	42.606	2.79%	0.71
47	38.721	39.839	40.985	2.88%	0.74
48	37.197	38.301	39.433	2.96%	0.76
49	35.740	36.829	37.948	3.04%	0.79
50	34.347	35.421	36.526	3.12%	0.81
51	33.015	34.074	35.164	3.20%	0.84
52	31.741	32.785	33.859	3.28%	0.87
53	30.522	31.550	32.609	3.36%	0.89
54	29.356	30.368	31.412	3.44%	0.92
55	28.241	29.236	30.264	3.51%	0.94
56	27.173	28.152	29.164	3.59%	0.97
57	26.150	27.113	28.108	3.67%	1.00
58	25.171	26.118	27.097	3.75%	1.02
59	24.234	25.163	26.126	3.83%	1.05
60	23.335	24.249	25.195	3.90%	1.08
61	22.475	23.372	24.302	3.98%	1.10
62	21.650	22.530	23.444	4.06%	1.13
63	20.859	21.723	22.621	4.13%	1.16
64	20.102	20.949	21.831	4.21%	1.19
65	19.375	20.207	21.072	4.28%	1.21
66	18.678	19.494	20.343	4.36%	1.24
67	18.009	18.809	19.643	4.43%	1.27
68	17.368	18.152	18.970	4.51%	1.30
69	16.752	17.521	18.324	4.58%	1.33
70	16.161	16.915	17.702	4.65%	1.36
71	15.594	16.333	17.105	4.73%	1.39
72	15.049	15.773	16.530	4.80%	1.41
73	14.526	15.235	15.978	4.87%	1.44
74	14.024	14.719	15.447	4.95%	1.47
75	13.5410	14.222	14.935	5.02%	1.50
76	13.0771	13.7441	14.444	5.09%	1.53
77	12.6314	13.2846	13.9702	5.16%	1.56
78	12.2029	12.8427	13.5146	5.23%	1.59
79	11.7910	12.4175	13.0760	5.30%	1.62
80	11.3948	12.0083	12.6536	5.37%	1.65

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R/T CHARACTERISTIC:

T(℃)	Rmin(kΩ)	Rcent(kΩ)	Rmax(kΩ)	DR(%)	DT(℃)	T(℃)	Rmin(kΩ)	Rcent(kΩ)	Rmax(kΩ)	DR(%)	DT(℃)
81	11.0139	11.6146	12.2469	5.44%	1.68	141	1.8677	2.0393	2.2265	9.2%	3.80
82	10.6474	11.2356	11.8551	5.51%	1.71	142	1.8203	1.9885	2.1721	9.2%	3.84
83	10.2948	10.8707	11.4777	5.58%	1.74	143	1.7743	1.9392	2.1193	9.3%	3.88
84	9.9555	10.5194	11.1140	5.65%	1.77	144	1.7296	1.8913	2.0680	9.3%	3.92
85	9.6290	10.1810	10.7636	5.72%	1.81	145	1.6862	1.8448	2.0182	9.4%	3.96
86	9.3147	9.8551	10.4258	5.79%	1.84	146	1.6441	1.7997	1.9697	9.5%	4.00
87	9.0121	9.5411	10.1002	5.86%	1.87	147	1.6032	1.7558	1.9227	9.5%	4.04
88	8.7207	9.2386	9.7862	5.93%	1.90	148	1.5635	1.7132	1.8769	9.6%	4.08
89	8.4401	8.9470	9.4834	6.00%	1.93	149	1.5250	1.6717	1.8324	9.6%	4.12
90	8.1697	8.6660	9.1914	6.06%	1.96	150	1.4875	1.6315	1.7892	9.7%	4.17
91	7.9093	8.3950	8.9097	6.13%	1.99	151	1.4512	1.5924	1.7471	9.7%	4.21
92	7.6584	8.1338	8.6379	6.20%	2.03	152	1.4158	1.5543	1.7062	9.8%	4.25
93	7.4165	7.8819	8.3757	6.26%	2.06	153	1.3815	1.5174	1.6665	9.8%	4.29
94	7.1834	7.6390	8.1226	6.33%	2.09	154	1.3482	1.4815	1.6278	9.9%	4.33
95	6.9587	7.4046	7.8783	6.40%	2.12	155	1.3157	1.4465	1.5902	9.9%	4.38
96	6.7420	7.1785	7.6424	6.46%	2.16	156	1.2842	1.4126	1.5536	10.0%	4.42
97	6.5330	6.9603	7.4147	6.53%	2.19	157	1.2536	1.3795	1.5180	10.0%	4.46
98	6.3315	6.7497	7.1948	6.59%	2.22	158	1.2238	1.3474	1.4833	10.1%	4.50
99	6.1370	6.5464	6.9824	6.66%	2.26	159	1.1949	1.3162	1.4496	10.1%	4.55
100	5.9494	6.3502	6.7772	6.72%	2.29	160	1.1668	1.2858	1.4168	10.2%	4.59
101	5.7684	6.1607	6.5790	6.79%	2.32	161	1.1394	1.2562	1.3848	10.2%	4.63
102	5.5937	5.9777	6.3874	6.85%	2.36	162	1.1128	1.2274	1.3537	10.3%	4.68
103	5.4251	5.8010	6.2023	6.92%	2.39	163	1.0869	1.1994	1.3235	10.3%	4.72
104	5.2623	5.6302	6.0234	6.98%	2.43	164	1.0617	1.1722	1.2940	10.4%	4.76
105	5.1051	5.4653	5.8504	7.05%	2.46	165	1.0372	1.1457	1.2653	10.4%	4.81
106	4.9533	5.3059	5.6831	7.11%	2.49	166	1.0134	1.1199	1.2374	10.5%	4.85
107	4.8066	5.1519	5.5214	7.17%	2.53	167	0.9902	1.0947	1.2102	10.5%	4.90
108	4.6650	5.0030	5.3650	7.24%	2.56	168	0.9677	1.0703	1.1837	10.6%	4.94
109	4.5281	4.8591	5.2137	7.30%	2.60	169	0.9457	1.0465	1.1578	10.6%	4.98
110	4.3959	4.7199	5.0673	7.36%	2.63	170	0.9243	1.0233	1.1327	10.7%	5.03
111	4.2681	4.5853	4.9257	7.42%	2.67	171	0.9035	1.0007	1.1082	10.7%	5.07
112	4.1446	4.4552	4.7886	7.48%	2.70	172	0.8833	0.9787	1.0843	10.8%	5.12
113	4.0252	4.3293	4.6560	7.55%	2.74	173	0.8635	0.9573	1.0610	10.8%	5.16
114	3.9097	4.2075	4.5276	7.61%	2.77	174	0.8443	0.9364	1.0384	10.9%	5.21
115	3.7981	4.0897	4.4033	7.67%	2.81	175	0.8257	0.9161	1.0163	10.9%	5.26
116	3.6901	3.9757	4.2830	7.73%	2.85	176	0.8074	0.8963	0.9947	11.0%	5.30
117	3.5857	3.8654	4.1665	7.79%	2.88	177	0.7897	0.8769	0.9737	11.0%	5.35
118	3.4846	3.7585	4.0536	7.85%	2.92	178	0.7724	0.8581	0.9532	11.1%	5.39
119	3.3869	3.6552	3.9443	7.91%	2.96	179	0.7556	0.8398	0.9333	11.1%	5.44
120	3.2923	3.5550	3.8384	7.97%	2.99	180	0.7392	0.8219	0.9138	11.2%	5.49
121	3.2007	3.4581	3.7358	8.03%	3.03	181	0.7232	0.8045	0.8948	11.2%	5.53
122	3.1121	3.3642	3.6364	8.09%	3.07	182	0.7077	0.7875	0.8763	11.3%	5.58
123	3.0264	3.2733	3.5400	8.15%	3.10	183	0.6925	0.7710	0.8583	11.3%	5.63
124	2.9433	3.1852	3.4466	8.21%	3.14	184	0.6777	0.7548	0.8407	11.4%	5.67
125	2.8629	3.0999	3.3561	8.27%	3.18	185	0.6633	0.7391	0.8235	11.4%	5.72
126	2.7850	3.0172	3.2683	8.33%	3.22	186	0.6493	0.7237	0.8067	11.5%	5.77
127	2.7096	2.9370	3.1833	8.38%	3.25	187	0.6356	0.7088	0.7904	11.5%	5.81
128	2.6365	2.8594	3.1007	8.44%	3.29	188	0.6222	0.6942	0.7744	11.6%	5.86
129	2.5657	2.7841	3.0207	8.50%	3.33	189	0.6092	0.6799	0.7588	11.6%	5.91
130	2.4971	2.7111	2.9431	8.56%	3.37	190	0.5965	0.6660	0.7436	11.6%	5.96
131	2.4306	2.6403	2.8678	8.61%	3.41	191	0.5841	0.6525	0.7288	11.7%	6.01
132	2.3662	2.5717	2.7947	8.67%	3.44	192	0.5720	0.6392	0.7143	11.7%	6.05
133	2.3038	2.5051	2.7238	8.73%	3.48	193	0.5602	0.6263	0.7001	11.8%	6.10
134	2.2432	2.4406	2.6550	8.79%	3.52	194	0.5487	0.6137	0.6863	11.8%	6.15
135	2.1845	2.3779	2.5882	8.84%	3.56	195	0.5375	0.6014	0.6729	11.9%	6.20
136	2.1276	2.3172	2.5234	8.90%	3.60	196	0.5266	0.5894	0.6597	11.9%	6.25
137	2.0724	2.2582	2.4605	8.95%	3.64	197	0.5159	0.5777	0.6468	12.0%	6.30
138	2.0189	2.2010	2.3994	9.01%	3.68	198	0.5055	0.5663	0.6343	12.0%	6.35

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HIGH PRECISION NTC THERMISTORS AND TEMPERATURE SENSORS

PART NUMBER: **TT2-100KC3H-7**

R/T CHARACTERISTIC:

201	0.4757	0.5335	0.5983	12.1%	6.50
202	0.4663	0.5231	0.5869	12.2%	6.55
203	0.4570	0.5130	0.5757	12.2%	6.60
204	0.4480	0.5031	0.5648	12.3%	6.65
205	0.4392	0.4934	0.5542	12.3%	6.70
206	0.4306	0.4839	0.5437	12.4%	6.75
207	0.4222	0.4746	0.5335	12.4%	6.80
208	0.4140	0.4656	0.5236	12.5%	6.85
209	0.4060	0.4568	0.5138	12.5%	6.90
210	0.3982	0.4481	0.5043	12.5%	6.95
211	0.3905	0.4397	0.4950	12.6%	7.00
212	0.3831	0.4314	0.4859	12.6%	7.05
213	0.3758	0.4234	0.4770	12.7%	7.10
214	0.3686	0.4155	0.4683	12.7%	7.16
215	0.3617	0.4078	0.4598	12.7%	7.21
216	0.3548	0.4003	0.4515	12.8%	7.26
217	0.3482	0.3929	0.4433	12.8%	7.31
218	0.3417	0.3857	0.4353	12.9%	7.36
219	0.3353	0.3786	0.4275	12.9%	7.42
220	0.3291	0.3717	0.4199	13.0%	7.47
221	0.3230	0.3650	0.4125	13.0%	7.52
222	0.3170	0.3584	0.4051	13.0%	7.58
223	0.3112	0.3520	0.3980	13.1%	7.63
224	0.3055	0.3456	0.3910	13.1%	7.68
225	0.3000	0.3395	0.3842	13.2%	7.74
226	0.2945	0.3334	0.3774	13.2%	7.79
227	0.2892	0.3275	0.3709	13.2%	7.84
228	0.2840	0.3217	0.3645	13.3%	7.90
229	0.2789	0.3161	0.3582	13.3%	7.95
230	0.2739	0.3105	0.3520	13.4%	8.01
231	0.2690	0.3051	0.3460	13.4%	8.06
232	0.2642	0.2998	0.3401	13.4%	8.12
233	0.2595	0.2946	0.3343	13.5%	8.17
234	0.2549	0.2895	0.3286	13.5%	8.23
235	0.2505	0.2845	0.3231	13.6%	8.28
236	0.2461	0.2796	0.3176	13.6%	8.34
237	0.2418	0.2748	0.3123	13.6%	8.39
238	0.2376	0.2701	0.3071	13.7%	8.45
239	0.2335	0.2655	0.3019	13.7%	8.50
240	0.2294	0.2610	0.2969	13.8%	8.56
241	0.2255	0.2566	0.2920	13.8%	8.62
242	0.2216	0.2523	0.2872	13.8%	8.67
243	0.2178	0.2481	0.2825	13.9%	8.73
244	0.2141	0.2439	0.2779	13.9%	8.79
245	0.2105	0.2399	0.2733	14.0%	8.84
246	0.2069	0.2359	0.2689	14.0%	8.90
247	0.2034	0.2320	0.2645	14.0%	8.96
248	0.2000	0.2282	0.2602	14.1%	9.01
249	0.1966	0.2244	0.2561	14.1%	9.07
250	0.1934	0.2207	0.2519	14.1%	9.13
251	0.1901	0.2171	0.2479	14.2%	9.19
252	0.1870	0.2136	0.2440	14.2%	9.24
253	0.1839	0.2101	0.2401	14.3%	9.30
254	0.1809	0.2067	0.2363	14.3%	9.36
255	0.1779	0.2034	0.2326	14.3%	9.42
256	0.1750	0.2002	0.2289	14.4%	9.48
257	0.1721	0.1970	0.2253	14.4%	9.54
258	0.1693	0.1938	0.2218	14.4%	9.60
259	0.1666	0.1907	0.2184	14.5%	9.65
261	0.1613	0.1848	0.2116	14.5%	9.77
262	0.1587	0.1819	0.2084	14.6%	9.83
263	0.1562	0.1790	0.2052	14.6%	9.89
264	0.1537	0.1762	0.2020	14.7%	9.95
265	0.1512	0.1735	0.1990	14.7%	10.01
266	0.1488	0.1708	0.1959	14.7%	10.07
267	0.1465	0.1682	0.1930	14.8%	10.13
268	0.1442	0.1656	0.1901	14.8%	10.19
269	0.1419	0.1630	0.1872	14.8%	10.25
270	0.1397	0.1605	0.1844	14.9%	10.32
271	0.1376	0.1581	0.1816	14.9%	10.38
272	0.1354	0.1557	0.1789	14.9%	10.44
273	0.1333	0.1533	0.1763	15.0%	10.50
274	0.1313	0.1510	0.1737	15.0%	10.56
275	0.1293	0.1487	0.1711	15.0%	10.62
276	0.1273	0.1465	0.1686	15.1%	10.68
277	0.1254	0.1443	0.1662	15.1%	10.75
278	0.1235	0.1422	0.1637	15.1%	10.81
279	0.1216	0.1401	0.1614	15.2%	10.87
280	0.1198	0.1380	0.1590	15.2%	10.93
281	0.1180	0.1360	0.1567	15.3%	11.00
282	0.1162	0.1340	0.1545	15.3%	11.06
283	0.1145	0.1320	0.1523	15.3%	11.12
284	0.1128	0.1301	0.1501	15.4%	11.18
285	0.1111	0.1282	0.1480	15.4%	11.25
286	0.1095	0.1264	0.1459	15.4%	11.31
287	0.1079	0.1246	0.1438	15.5%	11.37
288	0.1063	0.1228	0.1418	15.5%	11.44
289	0.1048	0.1210	0.1398	15.5%	11.50
290	0.1033	0.1193	0.1379	15.6%	11.57
291	0.1018	0.1176	0.1360	15.6%	11.63
292	0.1003	0.1160	0.1341	15.6%	11.70
293	0.0989	0.1144	0.1323	15.7%	11.76
294	0.0975	0.1128	0.1305	15.7%	11.82
295	0.0961	0.1112	0.1287	15.7%	11.89
296	0.0947	0.1097	0.1269	15.7%	11.95
297	0.0934	0.1082	0.1252	15.8%	12.02
298	0.0921	0.1067	0.1235	15.8%	12.09
299	0.0908	0.1052	0.1219	15.8%	12.15
300	0.0896	0.1038	0.1203	15.9%	12.22

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