

TEWA TERMICO LTD.
A PART OF TEWA ELECTRONICS GROUP

HIGH PRECISION NTC THERMISTORS AND TEMPERATURE SENSORS

SPECIFICATION
Of
NTC CHIP THERMISTOR

PART NUMBER: **TT3-1KC7-AZ**

No. of pages: 4

customer part number:

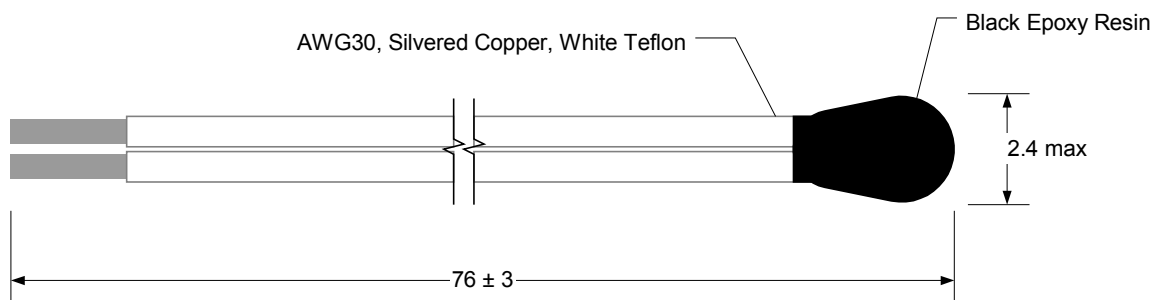
Date: **11.06.2012**

Revision: **00**

FEATURES:

No-load resistance at 25°C	1 000 Ω
Temperature Coefficient [alpha] at 25°C	-3.87%/°C
Resistance tolerance from 0°C to 70°C	± 0.1°C
Beta(25/85) Constant	3 500 ± 0.3%
Operating temperature range	From - 40°C to 125°C
Maximum Exposure Temperature	150°C
Response Time in well stirred liquid bath	~1s
Response Time in still air	~10s
Typical Dissipation Constant in still air	0.75mW/°C
RoHS Compliant	YES

DRAWING:



Units: [mm]

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R/T CHARACTERISTIC:

Resistance Tolerance B(25/85) Curve				1 000 $\pm 0.1^{\circ}\text{C}$ 3500 7	Ohms at 25°C from 0°C to 70°C $\pm 0.3\%$			
T (oC)	R min	R center	R max	T (oC)	R min	R center	R max	
-40	21038,88	21681	22323,12	0	2798,87	2825	2851,13	
-39	19871,97	20465	21058,03	1	2677,18	2702	2726,82	
-38	18776,34	19324	19871,66	2	2561,42	2585	2608,58	
-37	17749,22	18255	18760,78	3	2450,60	2473	2495,40	
-36	16782,98	17250	17717,02	4	2345,71	2367	2388,29	
-35	15876,76	16308	16739,24	5	2245,76	2266	2286,24	
-34	15024,23	15422	15819,77	6	2150,75	2170	2189,25	
-33	14223,16	14590	14956,84	7	2060,69	2079	2097,31	
-32	13470,72	13809	14147,28	8	1974,58	1992	2009,42	
-31	12761,17	13073	13384,83	9	1892,43	1909	1925,57	
-30	12094,60	12382	12669,40	10	1814,23	1830	1845,77	
-29	11465,95	11731	11996,05	11	1739,95	1755	1770,05	
-28	10873,63	11118	11362,37	12	1668,64	1683	1697,36	
-27	10315,77	10541	10766,23	13	1601,29	1615	1628,71	
-26	9790,47	9998	10205,53	14	1535,91	1549	1562,09	
-25	9293,89	9485	9676,11	15	1474,50	1487	1499,50	
-24	8914,32	9092	9269,68	16	1416,06	1428	1439,94	
-23	8385,14	8547	8708,86	17	1359,59	1371	1382,41	
-22	7968,17	8117	8265,83	18	1306,09	1317	1327,91	
-21	7575,22	7712	7848,78	19	1254,58	1265	1275,42	
-20	7203,40	7329	7454,60	20	1206,03	1216	1225,97	
-19	6850,98	6967	7083,02	21	1159,49	1169	1178,51	
-18	6518,87	6626	6733,13	22	1114,93	1124	1133,07	
-17	6204,14	6303	6401,86	23	1072,34	1081	1089,66	
-16	5906,81	5998	6089,19	24	1030,75	1039	1047,25	
-15	5624,95	5709	5793,05	25	992,12	1000	1007,88	
-14	5358,57	5436	5513,43	26	954,76	962,3	969,84	
-13	5106,72	5178	5249,28	27	918,98	926,2	933,42	
-12	4867,44	4933	4998,56	28	884,78	891,7	898,62	
-11	4641,75	4702	4762,25	29	852,08	858,7	865,32	
-10	4426,69	4482	4537,31	30	820,65	827	833,35	
-9	4223,53	4275	4326,47	31	790,62	796,7	802,78	
-8	4030,13	4078	4125,87	32	761,77	767,6	773,43	
-7	3846,49	3891	3935,51	33	734,22	739,8	745,38	
-6	3672,63	3714	3755,37	34	707,85	713,2	718,55	
-5	3507,56	3546	3584,44	35	682,47	687,6	692,73	
-4	3350,37	3386	3421,63	36	658,18	663,1	668,02	
-3	3201,99	3235	3268,01	37	634,88	639,6	644,32	
-2	3060,45	3091	3121,55	38	612,57	617,1	621,63	
-1	2926,73	2955	2983,27	39	591,06	595,4	599,74	

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T (oC)	R min	R center	R max	T (oC)	R min	R center	R max	
40	570,53	574,70	578,87	80	160,62	161,20	161,78	
41	550,80	554,80	558,80	81	156,03	156,60	157,17	
42	531,76	535,60	539,44	82	151,74	152,30	152,86	
43	513,61	517,30	520,99	83	147,44	148,00	148,56	
44	496,06	499,60	503,14	84	143,45	144,00	144,55	
45	479,30	482,70	486,10	85	139,46	140,00	140,54	
46	463,13	466,40	469,67	86	135,66	136,20	136,74	
47	447,56	450,70	453,84	87	131,97	132,50	133,03	
48	432,68	435,70	438,72	88	128,38	128,90	129,42	
49	418,40	421,30	424,20	89	124,88	125,40	125,92	
50	404,61	407,40	410,19	90	121,49	122,00	122,51	
51	391,32	394,00	396,68	91	118,30	118,80	119,30	
52	378,53	381,10	383,67	92	115,11	115,60	116,09	
53	366,23	368,70	371,17	93	112,12	112,60	113,08	
54	354,42	356,80	359,18	94	109,13	109,60	110,07	
55	343,11	345,40	347,69	95	106,24	106,70	107,16	
56	332,10	334,30	336,50	96	103,55	104,00	104,45	
57	321,58	323,70	325,82	97	100,85	101,30	101,75	
58	311,46	313,50	315,54	98	98,26	98,70	99,14	
59	301,64	303,60	305,56	99	95,67	96,10	96,53	
60	292,21	294,10	295,99	100	93,28	93,70	94,12	
61	283,18	285,00	286,82	101	90,89	91,30	91,71	
62	274,34	276,10	277,86	102	88,59	89,00	89,41	
63	265,90	267,60	269,30	103	86,40	86,80	87,20	
64	257,76	259,40	261,04	104	84,21	84,60	84,99	
65	249,91	251,50	253,09	105	82,12	82,50	82,88	
66	242,37	243,90	245,43	106	80,03	80,40	80,77	
67	235,12	236,60	238,08	107	78,03	78,40	78,77	
68	228,08	229,50	230,92	108	76,14	76,50	76,86	
69	221,23	222,60	223,97	109	74,25	74,60	74,95	
70	214,68	216,00	217,32	110	72,45	72,80	73,15	
71	208,29	209,60	210,91	111	70,75	71,10	71,45	
72	202,21	203,50	204,79	112	69,05	69,40	69,75	
73	196,22	197,50	198,78	113	67,35	67,70	68,05	
74	190,53	191,80	193,07	114	65,75	66,10	66,45	
75	184,95	186,20	187,45	115	64,15	64,50	64,85	
76	179,66	180,90	182,14	116	62,65	63,00	63,35	
77	174,48	175,70	176,92	117	61,15	61,50	61,85	
78	169,50	170,70	171,90	118	59,75	60,10	60,45	
79	164,61	165,80	166,99	119	58,35	58,70	59,05	

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T (oC)	R min	R center	R max	T (oC)	R min	R center	R max	
120	56,95	57,30	57,65	136	39,60	39,90	40,20	
121	55,66	56,00	56,34	137	38,80	39,10	39,40	
122	54,36	54,70	55,04	138	38,00	38,30	38,60	
123	53,07	53,40	53,73	139	37,10	37,40	37,70	
124	51,87	52,20	52,53	140	36,30	36,60	36,90	
125	50,68	51,00	51,32	141	35,60	35,90	36,20	
126	49,58	49,90	50,22	142	34,81	35,10	35,39	
127	48,49	48,80	49,11	143	34,11	34,40	34,69	
128	47,39	47,70	48,01	144	33,41	33,70	33,99	
129	46,30	46,60	46,90	145	32,71	33,00	33,29	
130	45,30	45,60	45,90	146	32,02	32,30	32,58	
131	44,30	44,60	44,90	147	31,32	31,60	31,88	
132	43,30	43,60	43,90	148	30,72	31,00	31,28	
133	42,40	42,70	43,00	149	30,13	30,40	30,67	
134	41,40	41,70	42,00	150	29,53	29,80	30,07	
135	40,50	40,80	41,10					