GA10K4A1
SERIES I THERMISTORS

Thermally Conductive Epoxy Coating
Ø 2.4 mm Maximum Diameter
32 AWG Alloy 180 Leads
Four Temperature Tolerance Classifications Available
RoHS Compliant

BetaCURVE series I thermistors are small epoxy coated devices with solid tin-plated lead wires. The series I offers a choice of precision temperature tolerance classifications for a wide variety of customer applications, such as temperature measurements, temperature indication, temperature control, and thermal compensation.

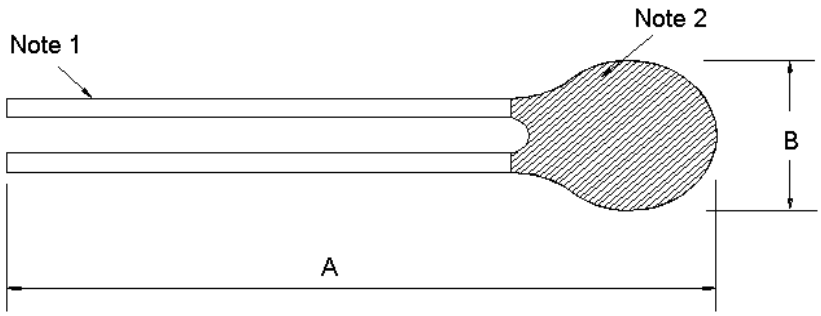
FEATURES

- Interchangeability
- Proven stability and reliability
- Rapid time response
- Alloy lead wires for reduced thermal conductivity ("stem effect")
- Thermally conductive epoxy coating
- Temperature range -40ºC to +125ºC
- Custom probe assemblies available

APPLICATIONS

- Temperature sensing, control and compensation
- Tight tolerance instrumentation
- General instrumentation applications

MECHANICAL DETAILS



DIMENSIONS

A	B
76 ±2 mm	2.4 mm max.

Note 1: 32 AWG Solid Alloy 180 Leads
Note 2: Black Stycast 2850ft Epoxy

PERFORMANCE SPECS

Parameters	Units	Value
Nominal Resistance at +25°C	Ohms	10,000
GA10K4A1A Resistance Tolerance from 0°C to +70°C	°C	±0.1
GA10K4A1B Resistance Tolerance from 0°C to +70°C	°C	±0.2
GA10K4A1C Resistance Tolerance from 0°C to +70°C	°C	±0.5
GA10K4A1D Resistance Tolerance from 0°C to +70°C	°C	±1.0
Alpha Value at +25°C	%/°C	4.04
Beta Value 25/85	K	3694
Tolerance on Beta Value 25/85	%	±0.5
Time Response in Liquids	Seconds	<1
Dissipation Constant in Still Air	mW/°C	0.75

RESISTANCE V TEMPERATURE TABLE

Temp. °C	Ohms
-40	239828
-39	226103
-38	213243
-37	201188
-36	189885
-35	179282
-34	169331
-33	159991
-32	151219
-31	142978
-30	135233
-29	127952
-28	121104
-27	114661
-26	108598
-25	102889
-24	97513
-23	92448
-22	87675
-21	83174
-20	78930
-19	74926
-18	71148
-17	67581
-16	64212
-15	61031
-14	58024
-13	55182
-12	52495
-11	49954
-10	47549
-9	45274
-8	43119
-7	41079
-6	39147
-5	37316
-4	35580
-3	33935
-2	32375
-1	30895
0	29490

Temp. °C	Ohms
1	28157
2	26891
3	25689
4	24547
5	23462
6	22431
7	21450
8	20518
9	19631
10	18787
11	17983
12	17219
13	16490
14	15797
15	15136
16	14506
17	13906
18	13334
19	12788
20	12268
21	11771
22	11297
23	10845
24	10413
25	**10000**
26	9606
27	9229
28	8869
29	8525
30	8196
31	7882
32	7581
33	7293
34	7018
35	6754
36	6501
37	6260
38	6028
39	5806
40	5594
41	5390

Temp. °C	Ohms
42	5195
43	5007
44	4828
45	4656
46	4490
47	4332
48	4180
49	4034
50	3893
51	3759
52	3629
53	3505
54	3386
55	3271
56	3160
57	3054
58	2952
59	2854
60	2760
61	2669
62	2582
63	2498
64	2417
65	2339
66	2264
67	2191
68	2122
69	2055
70	1990
71	1928
72	1868
73	1810
74	1754
75	1700
76	1648
77	1598
78	1550
79	1503
80	1458
81	1414
82	1372
83	1332

Temp. °C	Ohms
84	1293
85	1255
86	1218
87	1183
88	1149
89	1116
90	1084
91	1053
92	1023
93	994
94	967
95	940
96	913
97	888
98	864
99	840
100	817
101	795
102	774
103	753
104	733
105	713
106	694
107	676
108	658
109	641
110	624
111	608
112	592
113	577
114	562
115	548
116	534
117	521
118	507
119	495
120	482
121	470
122	459
123	448
124	437
125	426