



## GA3K3A1 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 -40°C to +125°C
- 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:** Red Stycast 2850ft Epoxy

**PERFORMANCE SPECS**

Parameters	Units	Value
Nominal Resistance at +25°C	Ohms	3,000
GA3K3A1A Resistance Tolerance from 0°C to +70°C	°C	±0.1
GA3K3A1B Resistance Tolerance from 0°C to +70°C	°C	±0.2
GA3K3A1C Resistance Tolerance from 0°C to +70°C	°C	±0.5
GA3K3A1D Resistance Tolerance from 0°C to +70°C	°C	±1.0
Alpha Value at +25°C	%/°C	4.39
Beta Value 25/85	K	3976
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	100619
-39	94180
-38	88194
-37	82625
-36	77442
-35	72616
-34	68121
-33	63932
-32	60026
-31	56382
-30	52982
-29	49808
-28	46843
-27	44073
-26	41484
-25	39062
-24	36796
-23	34676
-22	32690
-21	30830
-20	29087
-19	27453
-18	25921
-17	24483
-16	23134
-15	21867
-14	20676
-13	19558
-12	18507
-11	17518
-10	16588
-9	15713
-8	14890
-7	14114
-6	13383
-5	12694
-4	12045
-3	11433
-2	10855
-1	10310
0	9795
1	9309

Temp. °C	Ohms
2	8850
3	8416
4	8006
5	7619
6	7252
7	6905
8	6577
9	6266
10	5971
11	5692
12	5428
13	5177
14	4940
15	4714
16	4500
17	4297
18	4105
19	3922
20	3748
21	3583
22	3426
23	3277
24	3135
25	3000
26	2872
27	2749
28	2633
29	2522
30	2417
31	2316
32	2220
33	2129
34	2042
35	1959
36	1880
37	1804
38	1732
39	1663
40	1597
41	1535
42	1475
43	1417

Temp. °C	Ohms
44	1362
45	1310
46	1260
47	1212
48	1166
49	1122
50	1080
51	1040
52	1002
53	965
54	929
55	895
56	863
57	832
58	802
59	774
60	746
61	720
62	695
63	670
64	647
65	625
66	603
67	583
68	563
69	544
70	525
71	508
72	491
73	475
74	459
75	444
76	430
77	416
78	402
79	389
80	377
81	365
82	353
83	342
84	332
85	321

Temp. °C	Ohms
86	311
87	302
88	292
89	283
90	275
91	267
92	259
93	251
94	243
95	236
96	229
97	222
98	216
99	210
100	204
101	198
102	192
103	187
104	181
105	176
106	171
107	167
108	162
109	157
110	153
111	149
112	145
113	141
114	137
115	133
116	130
117	126
118	123
119	120
120	117
121	114
122	111
123	108
124	105
125	102