

## 100K6A1 SERIES 1

### Thermistor

#### SPECIFICATIONS

- **Thermally conductive epoxy coating**
- **Ø 2.4 mm Maximum Diameter**
- **32 AWG Alloy 180 Leads**
- **Choice of 4 temperature tolerance classifications**
- **RoHS Compliant**

The BetaCURVE Chip is Soldered to 32 AWG Alloy 180 Leads and Encapsulated in Stycast Epoxy Resin

## 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

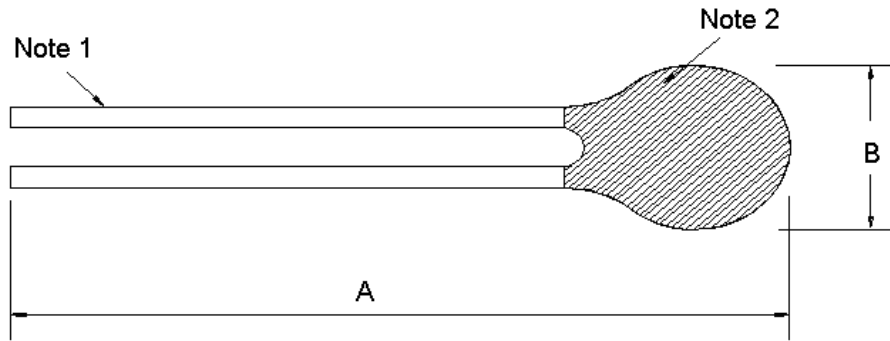
## APPLICATIONS

- Temperature sensing, control and compensation
- Tight Tolerance Instrumentation
- Assembly into probes for a wide variety of applications
- General Instrumentation applications

## PERFORMANCE SPECS

Parameters	Units	Value
Resistance @ +25°C	Ohms	100,000
100K6A1A Resistance tolerance from 0°C to +70°C	°C	0.1
100K6A1B Resistance tolerance from 0°C to +70°C	°C	0.2
100K6A1C Resistance tolerance from 0°C to +70°C	°C	0.5
100K6A1D Resistance tolerance from 0°C to +70°C	°C	1.0
Alpha Value @ 25°C	%/°C	4.68
Beta Value 25/85	K	4261
Tolerance on Beta Value 25/85	%	0.5
Time response in Liquids	Seconds	<1
Dissipation Constant in still air	mW/°C	0.75

**MECHANICAL DETAILS**



	Dimensions	
	A	B
	76 ± 2mm	2.4mm Max
<b>Note 1</b>	32 AWG Solid Alloy 180 Leads	
<b>Note 2</b>	Violet Stycast 2850ft Epoxy	

RESISTANCE V TEMPERATURE TABLE

Temp. °C	Ohms
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-40	4071186
-39	3798837
-38	3546330
-37	3312107
-36	3094743
-35	2892930
-34	2705469
-33	2531260
-32	2369292
-31	2218639
-30	2078448
-29	1947934
-28	1826376
-27	1713112
-26	1607529
-25	1509065
-24	1417202
-23	1331461
-22	1251401
-21	1176615
-20	1106727
-19	1041391
-18	980285
-17	923112
-16	869600
-15	819493
-14	772557
-13	728575
-12	687344
-11	648680
-10	612407
-9	578366
-8	546408
-7	516394
-6	488196
-5	461695
-4	436779
-3	413346
-2	391300
-1	370551
0	351017

Temp. °C	Ohms
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1	332620
2	315288
3	298954
4	283555
5	269034
6	255335
7	242408
8	230206
9	218684
10	207801
11	197518
12	187799
13	178610
14	169921
15	161700
16	153921
17	146558
18	139586
19	132983
20	126727
21	120799
22	115179
23	109850
24	104795
25	100000
26	95449
27	91129
28	87027
29	83131
30	79430
31	75913
32	72569
33	69390
34	66367
35	63491
36	60755
37	58150
38	55670
39	53309
40	51060
41	48917

Temp. °C	Ohms
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42	46875
43	44929
44	43073
45	41303
46	39615
47	38005
48	36467
49	35000
50	33599
51	32262
52	30984
53	29763
54	28596
55	27481
56	26415
57	25395
58	24420
59	23487
60	22594
61	21740
62	20922
63	20138
64	19388
65	18670
66	17981
67	17322
68	16689
69	16083
70	15502
71	14945
72	14410
73	13897
74	13405
75	12932
76	12478
77	12043
78	11625
79	11223
80	10837
81	10466
82	10109
83	9767

Temp. °C	Ohms
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84	9437
85	9121
86	8816
87	8523
88	8241
89	7970
90	7708
91	7457
92	7215
93	6982
94	6758
95	6541
96	6333
97	6132
98	5939
99	5753
100	5573
101	5400
102	5232
103	5071
104	4916
105	4766
106	4621
107	4481
108	4346
109	4216
110	4090
111	3969
112	3852
113	3738
114	3629
115	3523
116	3421
117	3322
118	3227
119	3134
120	3045
121	2959
122	2875
123	2794
124	2716
125	2640