

100K6A1 Series 1 Thermistor



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

DESCRIPTION

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

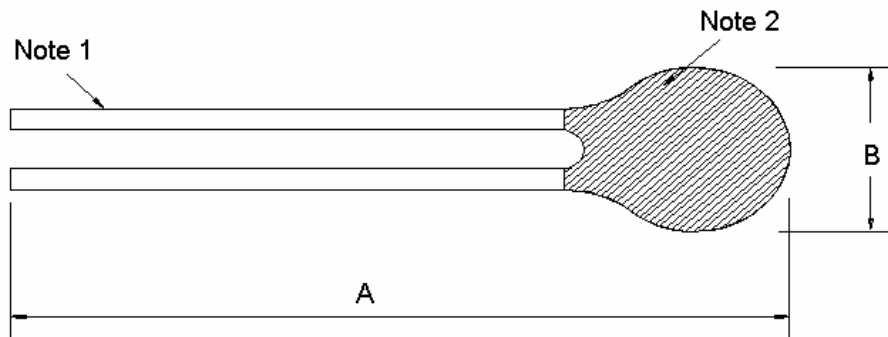
- Temperature sensing, control and compensation
- Tight Tolerance Instrumentation
- Assembly into probes for a wide variety of applications
- General Instrumentation applications

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

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MECHANICAL DETAILS



	Dimensions	
	A	B
	76 ± 2mm	2.4mm Max
Note 1	32 AWG Solid Alloy 180 Leads	
Note 2	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

Temp. °C	Ohms
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-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
1	332620
2	315288
3	298954
4	283555
5	269034

Temp. °C	Ohms
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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

Temp. °C	Ohms
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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
42	46875
43	44929
44	43073
45	41303
46	39615
47	38005
48	36467
49	35000
50	33599
51	32262

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52	30984	71	14945	90	7708	109	4216
53	29763	72	14410	91	7457	110	4090
54	28596	73	13897	92	7215	111	3969
55	27481	74	13405	93	6982	112	3852
56	26415	75	12932	94	6758	113	3738
57	25395	76	12478	95	6541	114	3629
58	24420	77	12043	96	6333	115	3523
59	23487	78	11625	97	6132	116	3421
60	22594	79	11223	98	5939	117	3322
61	21740	80	10837	99	5753	118	3227
62	20922	81	10466	100	5573	119	3134
63	20138	82	10109	101	5400	120	3045
64	19388	83	9767	102	5232	121	2959
65	18670	84	9437	103	5071	122	2875
66	17981	85	9121	104	4916	123	2794
67	17322	86	8816	105	4766	124	2716
68	16689	87	8523	106	4621	125	2640
69	16083	88	8241	107	4481		
70	15502	89	7970	108	4346		

ORDERING INFORMATION

Part Number	Description	Ω @25°C	MOQ
100K6A1A	Series 1 Thermistor	100,000	1,000*
100K6A1B	Series 1 Thermistor	100,000	1,000*
100K6A1C	Series 1 Thermistor	100,000	1,000*
100K6A1D	Series 1 Thermistor	100,000	1,000*

* For quantities less than Minimum Order Quantity – Contact Distribution

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