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# 100K6A1I SERIES II

# Thermistor

## **SPECIFICATIONS**

- Thermally conductive epoxy coating
- Ø 2.4 mm Maximum Diameter
- 30 AWG Solid Silver Plated Copper Leads with White PTFE Insulation
- Choice of 4 temperature tolerance classifications
- RoHS Compliant

The BetaCURVE Chip is Soldered to 30 AWG Solid Silver Plated Copper Leads with White PTFE Insulation Device is Encapsulated in Stycast Epoxy Resin.

## **FEATURES**

Interchangeability
Proven Stability and Reliability
Rapid time response
PTFE Insulated lead Wires
Thermally Conductive Epoxy Coating
Temperature range -40 °C to +125°C

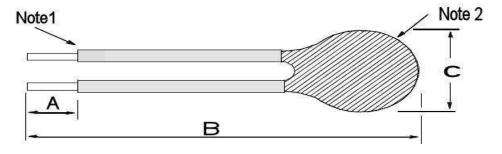
## **APPLICATIONS**

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
Nominal Resistance at +25°C	Ohms	100000
100K6A1iA Resistance tolerance from 0°C to +70°C	°C	± 0.1
100K6A1iB Resistance tolerance from 0°C to +70°C	°C	± 0.2
100K6A1iC Resistance tolerance from 0°C to +70°C	°C	± 0.5
100K6A1iD Resistance tolerance from 0°C to +70°C	°C	± 1.0
Alpha Value at +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	0.85

## **MECHANICAL DETAILS**



	Dimensions		
	Α	В	С
	10 ± 2mm	76 ± 2mm	2.4mm Max
Note 1	30AWG Solid Silver Plated Copper Leads with White PTFE Insulation		
Note 2	Violet Stycast 2850ft Epoxy		

# RESISTANCE V TEMPERATURE TABLE

Temp. °C	Ohms	
	l	
-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	

ERATUR	E TABLE	
Temp. °C	Ohms	
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	
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	

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		
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		
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		
87     8523       88     8241       89     7970       90     7708       91     7457       92     7215       93     6982       94     6758       95     6541       96     6333       97     6132       98     5939		
88     8241       89     7970       90     7708       91     7457       92     7215       93     6982       94     6758       95     6541       96     6333       97     6132       98     5939		
89     7970       90     7708       91     7457       92     7215       93     6982       94     6758       95     6541       96     6333       97     6132       98     5939		
90     7708       91     7457       92     7215       93     6982       94     6758       95     6541       96     6333       97     6132       98     5939		
91     7457       92     7215       93     6982       94     6758       95     6541       96     6333       97     6132       98     5939		
92 7215 93 6982 94 6758 95 6541 96 6333 97 6132 98 5939		
93 6982 94 6758 95 6541 96 6333 97 6132 98 5939		
94     6758       95     6541       96     6333       97     6132       98     5939		
95     6541       96     6333       97     6132       98     5939		
96     6333       97     6132       98     5939		
97 6132 98 5939		
98 5939		
99 5753		
00 0700		
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	1	
120 3045		
121 2959		
122 2875		
123 2794		
124 2716		
125 2640		

## **ORDERING INFORMATION**

Part Number	Description	Ω @25°C	MOQ
100K6A1iA	Series II – NTC Thermistor (± 0.1°C from 0°C to +70°C)	100000	1000*
100K6A1iB	Series II – NTC Thermistor (± 0.2°C from 0°C to +70°C)	100000	1000*
100K6A1iC	Series II – NTC Thermistor (± 0.5°C from 0°C to +70°C)	100000	1000*
100K6A1iD	Series II – NTC Thermistor (± 1.0°C from 0°C to +70°C)	100000	1000*

<sup>\*</sup> For quantities less than Minimum Order Quantity - Contact Distribution

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