

# 100K6A1W Series III & IV Thermistor



- Thermally conductive epoxy coating
- Choice of 30 AWG or 28 AWG tin plated copper leads
- Available in custom probe assemblies
- Available in custom tolerances
- RoHS Compliant

## DESCRIPTION

The BetaCURVE Chip is Soldered to Tin Plated Copper 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

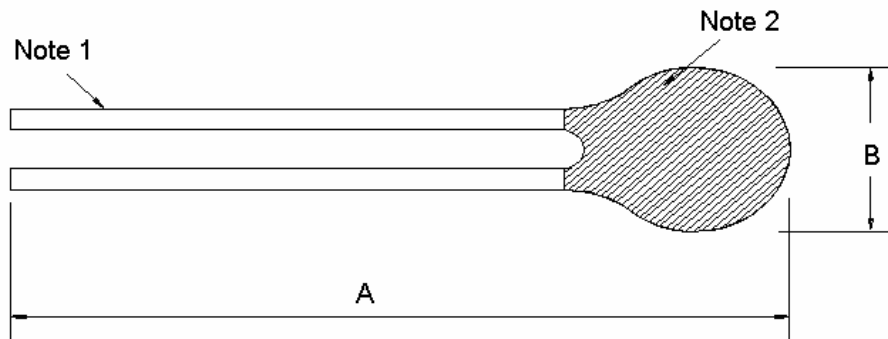
- Temperature sensing, control and compensation
- Tight Tolerance Instrumentation
- Assembly into probes for a wide variety of applications
- General Instrumentation applications

## PERFORMANCE SPECS

Parameters	Units	Value
Resistance @ +25°C	Ohms	100,000
100K6A1W2 Resistance tolerance from 0°C to +70°C	°C	0.2
100K6A1W3 Resistance tolerance from 0°C to +70°C	°C	0.2
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	<1.5
100K6A1W2 Dissipation Constant in still air	mW/°C	2
100K6A1W3 Dissipation Constant in still air	mW/°C	3

# 100K6A1W Series III & IV Thermistor

## MECHANICAL DETAILS



	100K6A1W2		100K6A1W3	
	A	B	A	B
		46 ± 5mm	2.4mm Max	46 ± 5mm
<b>Note 1</b>	30 AWG Tin Plated Copper Leads		28 AWG Tin Plated Copper Leads	
<b>Note 2</b>	Violet Stycast 2850ft Epoxy		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

Temp. °C	Ohms
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-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

Temp. °C	Ohms
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0	351017
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

Temp. °C	Ohms
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20	126727
21	120799
22	115179
23	109850
24	104795
25	<b>100000</b>
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

# 100K6A1W Series III & IV Thermistor

40	51060	62	20922	84	9437	106	4621
41	48917	63	20138	85	9121	107	4481
42	46875	64	19388	86	8816	108	4346
43	44929	65	18670	87	8523	109	4216
44	43073	66	17981	88	8241	110	4090
45	41303	67	17322	89	7970	111	3969
46	39615	68	16689	90	7708	112	3852
47	38005	69	16083	91	7457	113	3738
48	36467	70	15502	92	7215	114	3629
49	35000	71	14945	93	6982	115	3523
50	33599	72	14410	94	6758	116	3421
51	32262	73	13897	95	6541	117	3322
52	30984	74	13405	96	6333	118	3227
53	29763	75	12932	97	6132	119	3134
54	28596	76	12478	98	5939	120	3045
55	27481	77	12043	99	5753	121	2959
56	26415	78	11625	100	5573	122	2875
57	25395	79	11223	101	5400	123	2794
58	24420	80	10837	102	5232	124	2716
59	23487	81	10466	103	5071	125	2640
60	22594	82	10109	104	4916		
61	21740	83	9767	105	4766		

## ORDERING INFORMATION

Part Number	Description	$\Omega$ @25°C	MOQ
100K6A1W2	Series III Thermistor	100,000	1,000*
100K6A1W3	Series IV Thermistor	100,000	1,000*

\* For quantities less than Minimum Order Quantity – Contact Distribution

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