

# 10K3A1I Series II Thermistor



- 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

## DESCRIPTION

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

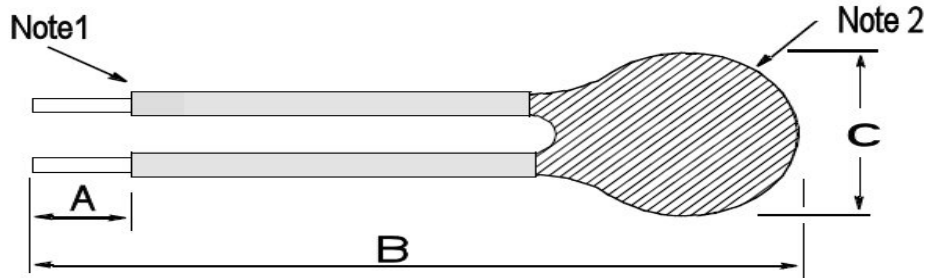
Temperature sensing, control and compensation  
Tight Tolerance Instrumentation  
Assembly into probes for a wide variety of applications  
General Instrumentation applications

## PERFORMANCE SPECS

Parameters	Units	Value
Nominal Resistance at +25°C	Ohms	10000
10K3A1iA Resistance tolerance from 0°C to +70°C	°C	± 0.1
10K3A1iB Resistance tolerance from 0°C to +70°C	°C	± 0.2
10K3A1iC Resistance tolerance from 0°C to +70°C	°C	± 0.5
10K3A1iD 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	0.85

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## MECHANICAL DETAILS



	Dimensions		
	A	B	C
	10 ± 2mm	76 ± 2mm	2.4mm Max
<b>Note 1</b>	30 AWG Solid Silver Plated Copper Leads with White PTFE Insulation		
<b>Note 2</b>	Yellow Stycast 2850ft Epoxy		

## RESISTANCE V TEMPERATURE TABLE

Temp. °C	Ohms
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-40	336098
-39	314553
-38	294524
-37	275897
-36	258563
-35	242427
-34	227398
-33	213394
-32	200339
-31	188163
-30	176803
-29	166198
-28	156294
-27	147042
-26	138393
-25	130306
-24	122741
-23	115661
-22	109032
-21	102824
-20	97006
-19	91553
-18	86439
-17	81641
-16	77138
-15	72911

Temp. °C	Ohms
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-14	68940
-13	65209
-12	61703
-11	58405
-10	55304
-9	52385
-8	49638
-7	47050
-6	44613
-5	42317
-4	40151
-3	38110
-2	36184
-1	34366
0	32651
1	31031
2	29500
3	28054
4	26687
5	25395
6	24172
7	23016
8	21921
9	20885
10	19903
11	18973

Temp. °C	Ohms
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12	18092
13	17257
14	16465
15	15714
16	15001
17	14324
18	13682
19	13073
20	12493
21	11943
22	11420
23	10923
24	10450
25	<b>10000</b>
26	9572
27	9165
28	8777
29	8408
30	8056
31	7721
32	7402
33	7097
34	6807
35	6530
36	6266
37	6014

Temp. °C	Ohms
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38	5774
39	5544
40	5325
41	5116
42	4916
43	4724
44	4542
45	4367
46	4200
47	4040
48	3887
49	3741
50	3601
51	3467
52	3339
53	3216
54	3098
55	2985
56	2877
57	2773
58	2674
59	2579
60	2487
61	2399
62	2315
63	2234

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64	2157	84	1105	104	604	124	350
65	2082	85	1070	105	587	125	341
66	2011	86	1037	106	571		
67	1942	87	1005	107	555		
68	1876	88	974	108	539		
69	1813	89	945	109	524		
70	1752	90	916	110	510		
71	1693	91	888	111	496		
72	1637	92	862	112	482		
73	1582	93	836	113	469		
74	1530	94	811	114	457		
75	1480	95	787	115	444		
76	1432	96	764	116	432		
77	1385	97	741	117	421		
78	1341	98	720	118	410		
79	1298	99	699	119	399		
80	1256	100	678	120	388		
81	1216	101	659	121	378		
82	1178	102	640	122	368		
83	1141	103	622	123	359		

## ORDERING INFORMATION

Part Number	Description	$\Omega$ @25°C	MOQ
10K3A1iA	Series II Thermistor – Epoxy Coated	10000	1,000*
10K3A1iB	Series II Thermistor – Epoxy Coated	10000	1,000*
10K3A1iC	Series II Thermistor – Epoxy Coated	10000	1,000*
10K3A1iD	Series II Thermistor – Epoxy Coated	10000	1,000*

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

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