

# 10K3A1 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

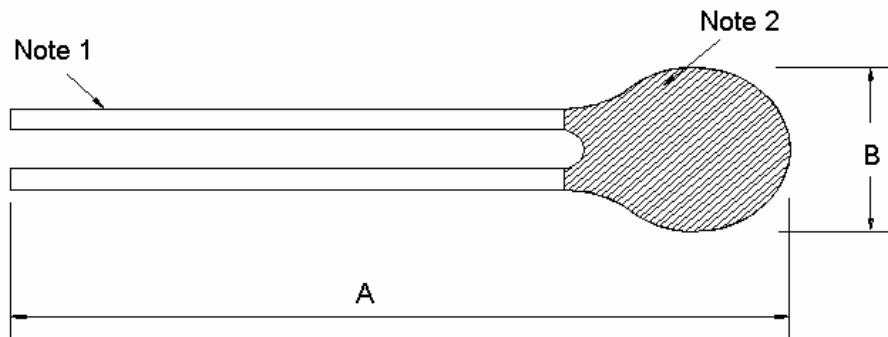
- Temperature sensing, control and compensation
- Tight Tolerance Instrumentation
- Assembly into probes for a wide variety of applications
- General Instrumentation applications

## PERFORMANCE SPECS

Parameters	Units	Value
Resistance @ +25°C	Ohms	10,000
10K3A1A Resistance tolerance from 0°C to +70°C	°C	0.1
10K3A1B Resistance tolerance from 0°C to +70°C	°C	0.2
10K3A1C Resistance tolerance from 0°C to +70°C	°C	0.5
10K3A1D Resistance tolerance from 0°C to +70°C	°C	1.0
Alpha Value @ 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	0.75

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## MECHANICAL DETAILS



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

Temp. °C	Ohms
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-17	81641
-16	77138
-15	72911
-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

Temp. °C	Ohms
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6	24172
7	23016
8	21921
9	20885
10	19903
11	18973
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

Temp. °C	Ohms
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29	8408
30	8056
31	7721
32	7402
33	7097
34	6807
35	6530
36	6266
37	6014
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

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52	3339	71	1693	90	916	109	524
53	3216	72	1637	91	888	110	510
54	3098	73	1582	92	862	111	496
55	2985	74	1530	93	836	112	482
56	2877	75	1480	94	811	113	469
57	2773	76	1432	95	787	114	457
58	2674	77	1385	96	764	115	444
59	2579	78	1341	97	741	116	432
60	2487	79	1298	98	720	117	421
61	2399	80	1256	99	699	118	410
62	2315	81	1216	100	678	119	399
63	2234	82	1178	101	659	120	388
64	2157	83	1141	102	640	121	378
65	2082	84	1105	103	622	122	368
66	2011	85	1070	104	604	123	359
67	1942	86	1037	105	587	124	350
68	1876	87	1005	106	571	125	341
69	1813	88	974	107	555		
70	1752	89	945	108	539		

## ORDERING INFORMATION

Part Number	Description	$\Omega$ @25°C	MOQ
10K3A1A	Series 1 Thermistor	10,000	1,000*
10K3A1B	Series 1 Thermistor	10,000	1,000*
10K3A1C	Series 1 Thermistor	10,000	1,000*
10K3A1D	Series 1 Thermistor	10,000	1,000*

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

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