

10K3A1 SERIES 1

Thermistor

SPECIFICATIONS

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

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

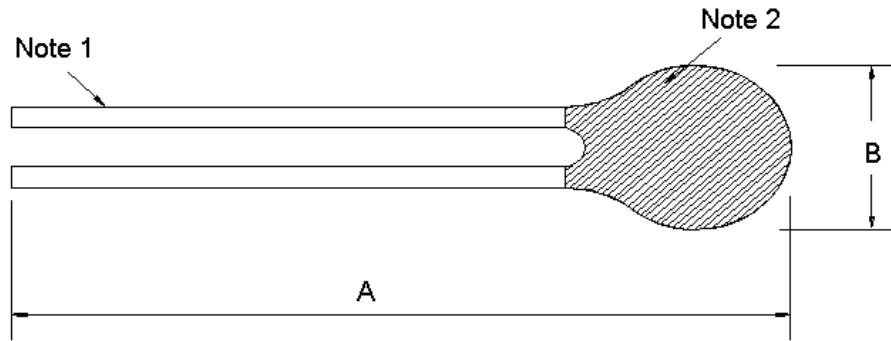
APPLICATIONS

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

MECHANICAL DETAILS



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

Temp. °C	Ohms
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1	31031
2	29500
3	28054
4	26687
5	25395
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	10000
26	9572
27	9165
28	8777
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

Temp. °C	Ohms
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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
64	2157
65	2082
66	2011
67	1942
68	1876
69	1813
70	1752
71	1693
72	1637
73	1582
74	1530
75	1480
76	1432
77	1385
78	1341
79	1298
80	1256
81	1216
82	1178
83	1141

Temp. °C	Ohms
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84	1105
85	1070
86	1037
87	1005
88	974
89	945
90	916
91	888
92	862
93	836
94	811
95	787
96	764
97	741
98	720
99	699
100	678
101	659
102	640
103	622
104	604
105	587
106	571
107	555
108	539
109	524
110	510
111	496
112	482
113	469
114	457
115	444
116	432
117	421
118	410
119	399
120	388
121	378
122	368
123	359
124	350
125	341

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Thermistor

ORDERING INFORMATION

Part Number	Description	Ω @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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