



10K4A1 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

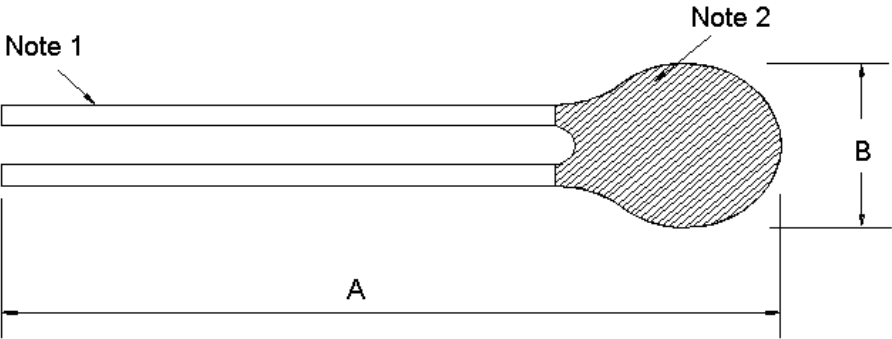
APPLICATIONS

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
10K4A1A Resistance tolerance from 0°C to +70°C	°C	0.1
10K4A1B Resistance tolerance from 0°C to +70°C	°C	0.2
10K4A1C Resistance tolerance from 0°C to +70°C	°C	0.5
10K4A1D Resistance tolerance from 0°C to +70°C	°C	1.0
Alpha Value @ 25°C	%/°C	4.04
Beta Value 25/85	K	3694
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	Black Stycast 2850ft Epoxy	

RESISTANCE V TEMPERATURE TABLE

Temp. °C	Ohms
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-40	239828
-39	226103
-38	213243
-37	201188
-36	189885
-35	179282
-34	169331
-33	159991
-32	151219
-31	142978
-30	135233
-29	127952
-28	121104
-27	114661
-26	108598
-25	102889
-24	97513
-23	92448
-22	87675
-21	83174
-20	78930
-19	74926
-18	71148
-17	67581
-16	64212
-15	61031
-14	58024
-13	55182
-12	52495
-11	49954
-10	47549
-9	45274
-8	43119
-7	41079
-6	39147
-5	37316
-4	35580
-3	33935
-2	32375
-1	30895
0	29490

Temp. °C	Ohms
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1	28157
2	26891
3	25689
4	24547
5	23462
6	22431
7	21450
8	20518
9	19631
10	18787
11	17983
12	17219
13	16490
14	15797
15	15136
16	14506
17	13906
18	13334
19	12788
20	12268
21	11771
22	11297
23	10845
24	10413
25	10000
26	9606
27	9229
28	8869
29	8525
30	8196
31	7882
32	7581
33	7293
34	7018
35	6754
36	6501
37	6260
38	6028
39	5806
40	5594
41	5390

Temp. °C	Ohms
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42	5195
43	5007
44	4828
45	4656
46	4490
47	4332
48	4180
49	4034
50	3893
51	3759
52	3629
53	3505
54	3386
55	3271
56	3160
57	3054
58	2952
59	2854
60	2760
61	2669
62	2582
63	2498
64	2417
65	2339
66	2264
67	2191
68	2122
69	2055
70	1990
71	1928
72	1868
73	1810
74	1754
75	1700
76	1648
77	1598
78	1550
79	1503
80	1458
81	1414
82	1372
83	1332

Temp. °C	Ohms
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84	1293
85	1255
86	1218
87	1183
88	1149
89	1116
90	1084
91	1053
92	1023
93	994
94	967
95	940
96	913
97	888
98	864
99	840
100	817
101	795
102	774
103	753
104	733
105	713
106	694
107	676
108	658
109	641
110	624
111	608
112	592
113	577
114	562
115	548
116	534
117	521
118	507
119	495
120	482
121	470
122	459
123	448
124	437
125	426

ORDERING INFORMATION

Part Number	Description	Ω @25°C	MOQ
10K4A1A	Series 1 Thermistor	10,000	1,000*
10K4A1B	Series 1 Thermistor	10,000	1,000*
10K4A1C	Series 1 Thermistor	10,000	1,000*
10K4A1D	Series 1 Thermistor	10,000	1,000*

* For quantities less than Minimum Order Quantity – Contact Distribution

NORTH AMERICA

Measurement Specialties, Inc.,
a TE Connectivity Company
910 Turnpike Road
Shrewsbury, MA 01545
Tel: 1-508-842-0516
Fax: 1-508-842-0342
Sales email:
temperature.sales.amer@meas-spec.com

EUROPE

Measurement Specialties (Europe), Ltd.,
a TE Connectivity Company
Ballybrit Business Park
Galway Ireland
Tel: +353-91-753238
Fax: +353-91-770789
Sales email:
temperature.sales.emea@meas-spec.com

ASIA

Measurement Specialties (China), Ltd.,
a TE Connectivity Company
No. 26 Langshan Road
Shenzhen High-Tech Park (North)
Nanshan District, Shenzhen 518057
China
Tel: +86 755 3330 5088
Fax: +86 755 3330 5099
Sales email:
temperature.sales.asia@meas-spec.com

TE.com/sensorsolutions

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