



50K6A1 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

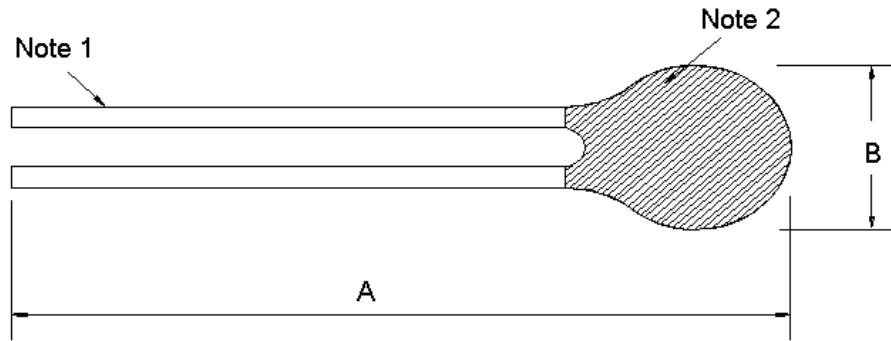
APPLICATIONS

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	50,000
50K6A1A Resistance tolerance from 0°C to +70°C	°C	0.1
50K6A1B Resistance tolerance from 0°C to +70°C	°C	0.2
50K6A1C Resistance tolerance from 0°C to +70°C	°C	0.5
50K6A1D Resistance tolerance from 0°C to +70°C	°C	1.0
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
Dissipation Constant in still air	mW/°C	0.75

MECHANICAL DETAILS



Dimensions	
A	B
$76 \pm 2\text{mm}$	2.4mm Max
Note 1	32 AWG Solid Alloy 180 Leads
Note 2	Blue Stycast 2850ft Epoxy

RESISTANCE V TEMPERATURE TABLE

Temp. °C	Ohms
-40	2033476
-39	1897553
-38	1771522
-37	1654608
-36	1546100
-35	1445347
-34	1351752
-33	1264768
-32	1183890
-31	1108657
-30	1038644
-29	973460
-28	912745
-27	856170
-26	803428
-25	754240
-24	708347
-23	665510
-22	625510
-21	588143
-20	553222
-19	520574
-18	490038
-17	461467
-16	434724
-15	409682
-14	386224
-13	364242
-12	343634
-11	324308
-10	306178
-9	289162
-8	273187
-7	258184
-6	244088
-5	230839
-4	218384
-3	206669
-2	195647
-1	185274
0	175508

Temp. °C	Ohms
1	166310
2	157645
3	149478
4	141779
5	134519
6	127670
7	121206
8	115105
9	109344
10	103902
11	98761
12	93901
13	89307
14	84962
15	80852
16	76962
17	73280
18	69794
19	66492
20	63364
21	60400
22	57590
23	54925
24	52398
25	50000
26	47724
27	45564
28	43513
29	41565
30	39715
31	37956
32	36284
33	34695
34	33183
35	31745
36	30376
37	29074
38	27834
39	26654
40	25529
41	24458

Temp. °C	Ohms
42	23437
43	22463
44	21536
45	20651
46	19807
47	19001
48	18233
49	17499
50	16799
51	16130
52	15491
53	14881
54	14297
55	13740
56	13207
57	12697
58	12209
59	11743
60	11297
61	10869
62	10460
63	10069
64	9694
65	9335
66	8990
67	8661
68	8345
69	8041
70	7751
71	7472
72	7205
73	6948
74	6702
75	6466
76	6239
77	6022
78	5812
79	5612
80	5419
81	5233
82	5055
83	4884

Temp. °C	Ohms
84	4719
85	4561
86	4408
87	4262
88	4121
89	3985
90	3855
91	3729
92	3608
93	3492
94	3379
95	3271
96	3167
97	3067
98	2970
99	2877
100	2787
101	2700
102	2617
103	2536
104	2459
105	2384
106	2311
107	2241
108	2174
109	2109
110	2046
111	1985
112	1927
113	1870
114	1815
115	1762
116	1711
117	1662
118	1614
119	1568
120	1523
121	1480
122	1438
123	1398
124	1359
125	1321