



10K3A1 SERIES 1

Thermistor

SPECIFICATIONS

- Thermally conductive epoxy coating
- Ø 2.4 mm Maximum Diameter
- 32 AWG Alloy 180 Leads

09/2015

- 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

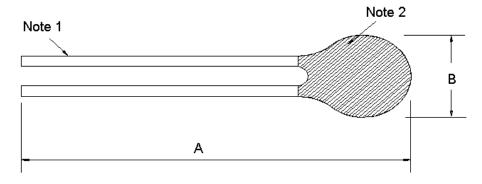
APPLICATIONS

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		
	Α	В	
	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	
-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	
-77	58405	
-10	55304	
-9	52385	
-8	49638	
-7	47050	
-6	44613	
- 5	42317	
-4	40151	
-3	38110	
-2	36184	
-7	34366	
0	32651	

ERATURE TABLE			
Temp. °C Ohms			
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	
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	

84	1105	
<i>85</i>	1070	
86	1037	
<i>8</i> 7	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	<i>571</i>	
107	555	
108	539	
109	524	
110	510	
111	496	
112	496 482	
113	469	
114	457	
115		
116	444 432	
117	432 421	
117 118	121	
	410	
<u>119</u>	399 388	
120 121	378	
<u>121</u> 122		
	368 350	
123 127	359 350	
124	350	
125	341	

Ohms

Temp. °C

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

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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