

5K3A1W Series III & IV Thermistor



- Thermally conductive epoxy coating
- Choice of 30 AWG or 28 AWG tin plated copper leads
- Available in custom probe assemblies
- Available in custom tolerances
- RoHS Compliant

DESCRIPTION

The BetaCURVE Chip is Soldered to Tin Plated Copper 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

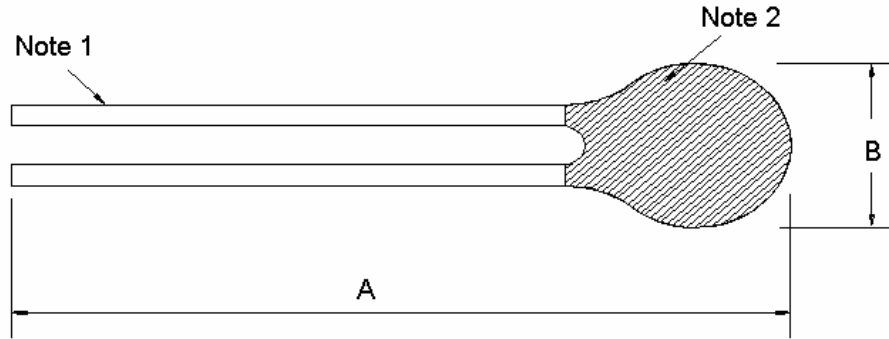
- Temperature sensing, control and compensation
- Tight Tolerance Instrumentation
- Assembly into probes for a wide variety of applications
- General Instrumentation applications

PERFORMANCE SPECS

Parameters	Units	Value
Resistance @ +25°C	Ohms	5,000
5K3A1W2 Resistance tolerance from 0°C to +70°C	°C	0.2
5K3A1W3 Resistance tolerance from 0°C to +70°C	°C	0.2
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	<1.5
5K3A1W2 Dissipation Constant in still air	mW/°C	2
5K3A1W3 Dissipation Constant in still air	mW/°C	3

5K3A1W Series III & IV Thermistor

MECHANICAL DETAILS



	5K3A1W2		5K3A1W3	
	A	B	A	B
	46 ± 5mm	2.4mm Max	46 ± 5mm	2.8mm Max
Note 1	30 AWG Tin Plated Copper Leads		28 AWG Tin Plated Copper Leads	
Note 2	Orange Stycast 2850ft Epoxy		Orange Stycast 2850ft Epoxy	

RESISTANCE V TEMPERATURE TABLE

Temp. °C	Ohms	Temp. °C	Ohms	Temp. °C	Ohms	Temp. °C	Ohms
-40	167862	-20	48490	0	16325	20	6247
-39	157111	-19	45765	1	15515	21	5972
-38	147117	-18	43210	2	14750	22	5710
-37	137820	-17	40812	3	14027	23	5461
-36	129169	-16	38562	4	13344	24	5225
-35	121114	-15	36450	5	12698	25	5000
-34	113611	-14	34465	6	12086	26	4786
-33	106620	-13	32601	7	11508	27	4582
-32	100102	-12	30848	8	10961	28	4388
-31	94022	-11	29200	9	10443	29	4204
-30	88349	-10	27649	10	9952	30	4028
-29	83054	-9	26191	11	9487	31	3860
-28	78107	-8	24817	12	9046	32	3701
-27	73486	-7	23524	13	8629	33	3549
-26	69166	-6	22306	14	8233	34	3403
-25	65127	-5	21158	15	7857	35	3265
-24	61348	-4	20075	16	7501	36	3133
-23	57811	-3	19055	17	7162	37	3007
-22	54499	-2	18092	18	6841	38	2887
-21	51397	-1	17183	19	6536	39	2772

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40	2662	62	1158	84	553	106	285
41	2558	63	1117	85	535	107	277
42	2458	64	1078	86	519	108	270
43	2362	65	1041	87	503	109	262
44	2271	66	1005	88	487	110	255
45	2183	67	971	89	472	111	248
46	2100	68	938	90	458	112	241
47	2020	69	906	91	444	113	235
48	1944	70	876	92	431	114	228
49	1870	71	847	93	418	115	222
50	1800	72	818	94	406	116	216
51	1733	73	791	95	394	117	211
52	1669	74	765	96	382	118	205
53	1608	75	740	97	371	119	200
54	1549	76	716	98	360	120	194
55	1493	77	693	99	349	121	189
56	1438	78	670	100	339	122	184
57	1387	79	649	101	330	123	180
58	1337	80	628	102	320	124	175
59	1289	81	608	103	311	125	170
60	1244	82	589	104	302		
61	1200	83	570	105	294		

ORDERING INFORMATION

Part Number	Description	Ω @25°C	MOQ
5K3A1W2	Series III Thermistor	5,000	1,000*
5K3A1W3	Series IV Thermistor	5,000	1,000*

* For quantities less than Minimum Order Quantity – Contact Distribution

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