

10K3A1W 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

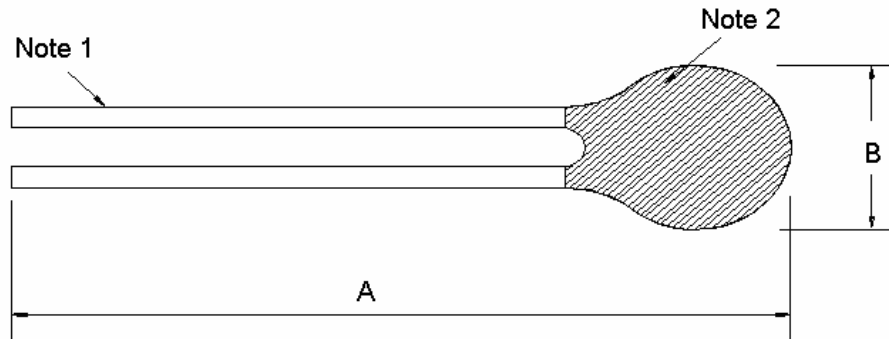
- Temperature sensing, control and compensation
- Tight Tolerance Instrumentation
- Assembly into probes for a wide variety of applications
- General Instrumentation applications

PERFORMANCE SPECS

Parameters	Units	Value
Resistance @ +25°C	Ohms	10,000
10K3A1W2 Resistance tolerance from 0°C to +70°C	°C	0.2
10K3A1W3 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
10K3A1W2 Dissipation Constant in still air	mW/°C	2
10K3A1W3 Dissipation Constant in still air	mW/°C	3

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MECHANICAL DETAILS



	10K3A1W2		10K3A1W3	
	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	Yellow Stycast 2850ft Epoxy		Yellow Stycast 2850ft Epoxy	

RESISTANCE V TEMPERATURE TABLE

Temp. °C	Ohms	Temp. °C	Ohms	Temp. °C	Ohms	Temp. °C	Ohms
-40	336098	-20	97006	0	32651	20	12493
-39	314553	-19	91553	1	31031	21	11943
-38	294524	-18	86439	2	29500	22	11420
-37	275897	-17	81641	3	28054	23	10923
-36	258563	-16	77138	4	26687	24	10450
-35	242427	-15	72911	5	25395	25	10000
-34	227398	-14	68940	6	24172	26	9572
-33	213394	-13	65209	7	23016	27	9165
-32	200339	-12	61703	8	21921	28	8777
-31	188163	-11	58405	9	20885	29	8408
-30	176803	-10	55304	10	19903	30	8056
-29	166198	-9	52385	11	18973	31	7721
-28	156294	-8	49638	12	18092	32	7402
-27	147042	-7	47050	13	17257	33	7097
-26	138393	-6	44613	14	16465	34	6807
-25	130306	-5	42317	15	15714	35	6530
-24	122741	-4	40151	16	15001	36	6266
-23	115661	-3	38110	17	14324	37	6014
-22	109032	-2	36184	18	13682	38	5774
-21	102824	-1	34366	19	13073	39	5544

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40	5325	62	2315	84	1105	106	571
41	5116	63	2234	85	1070	107	555
42	4916	64	2157	86	1037	108	539
43	4724	65	2082	87	1005	109	524
44	4542	66	2011	88	974	110	510
45	4367	67	1942	89	945	111	496
46	4200	68	1876	90	916	112	482
47	4040	69	1813	91	888	113	469
48	3887	70	1752	92	862	114	457
49	3741	71	1693	93	836	115	444
50	3601	72	1637	94	811	116	432
51	3467	73	1582	95	787	117	421
52	3339	74	1530	96	764	118	410
53	3216	75	1480	97	741	119	399
54	3098	76	1432	98	720	120	388
55	2985	77	1385	99	699	121	378
56	2877	78	1341	100	678	122	368
57	2773	79	1298	101	659	123	359
58	2674	80	1256	102	640	124	350
59	2579	81	1216	103	622	125	341
60	2487	82	1178	104	604		
61	2399	83	1141	105	587		

ORDERING INFORMATION

Part Number	Description	Ω @25°C	MOQ
10K3A1W2	Series III Thermistor	10,000	1,000*
10K3A1W3	Series IV Thermistor	10,000	1,000*

* For quantities less than Minimum Order Quantity – Contact Distribution

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