

Figure 1. The Physical Photo of ATH30K1R3B3950K

### MAIN FEATURES

- Glass Encapsulated for Long Term Stability & Reliability
- High Stability:  $<0.1^{\circ}\text{C}/\text{year}$
- Small Size:  $\phi 1.3\text{mm} \times 2.0\text{mm}$
- High Resistance Accuracy: 1%
- Quick Response Time: 14s
- Wide Temp. Range:  $-40^{\circ}\text{C}$  to  $250^{\circ}\text{C}$
- Leads: dumet wires (copper-clad FeNi)
- 100% Lead (Pb)-free and RoHS Compliant

### APPLICATIONS

The ATH30K1R3B3950K thermistor is ideal for temperature sensing in high-precision devices such as laser diodes and optical components that require accurate temperature monitoring. In addition, due to its low cost, it is also suitable for use in automotive electronics, industrial electronics, and home appliances where cost-effective temperature sensing is required.

### DESCRIPTION

Figure 1 displays the ATH30K1R3B3950K thermistor, which boasts high precision and a glass encapsulation design. In contrast to conventional epoxy-encapsulated thermistors, the ATH30K1R3B3950K offers superior long-term stability and a wider temperature range. Moreover, it has a compact size and a quick response time.

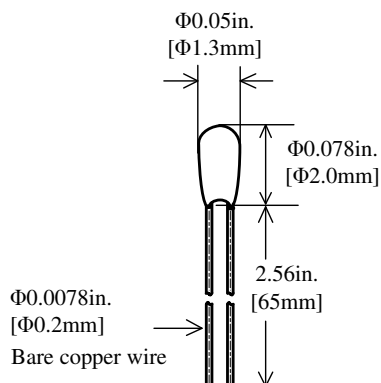


Figure 2. Side View of ATH30K1R3B3950K

### SPECIFICATIONS

Parameters	Symbol	Value
Nominal Resistance @ $25^{\circ}\text{C}$	$R_{25}$	$30\text{K} \pm 1\%$
B Value @ $25^{\circ}\text{C} / 50^{\circ}\text{C}$	$B_{25/50}$	$3950\text{K} \pm 1\%$
Thermistor Diameter	$D_T$	$1.3 \pm 0.2\text{mm}$
Thermistor Length	$L_T$	$2.0 \pm 0.5\text{mm}$
Lead Diameter	$D_L$	$0.2 \pm 0.05\text{mm}$
Lead Length	$L_L$	$65 \pm 5\text{mm}$
Dissipation Factor	$\delta_{th}$	$1.4\text{mW}/^{\circ}\text{C}$
Insulation Resistance	$R_{is}$	$\geq 100\text{M}\Omega$
Maximum Power @ $25^{\circ}\text{C}$	$P_{max}$	$35\text{mW}$
Time Constant	$\tau_c$	14s (in still air @ $5 \sim 25^{\circ}\text{C}$ )

### APPLICATION

One common issue encountered when potting the thermistor into a solid object to sense its temperature is the formation of air bubbles within the epoxy between the thermistor bead and the target object. These air bubbles can significantly delay the thermistor's response time. To address this problem, it is recommended to drill a deep counterbore hole and use thermal conductive epoxy to pot the thermistor at the bottom of the hole, as illustrated in Figure 3. This method effectively reduces the formation of air bubbles and enhances the thermistor's overall performance.

To prevent the formation of air bubbles during the potting process, it is recommended to cure the epoxy at the temperature specified by the manufacturer. For optimal results, curing should be conducted in a vacuum environment and/or on top of a vibration platform to eliminate any remaining air pockets. By taking these measures, the potting process can be optimized, resulting in accurate temperature sensing with the shortest possible response time.

The ATH30K1R3B3950K thermistor is terminated with leaded bare copper wires. For applications that require insulated lead wires, we offer insulation tubing. For more information, please click [HERE](#).

The radial glass bead encapsulation NTC thermistor exhibits superior resistance to heat and climatic conditions and have a long lifetime compared to resin-coated thermistors. It is made of bonding lead wire, gold/silver electrodes and qualified ceramic thermistor chip, which makes it keep stable characteristics. It features long-term stability, reliability, wide temperature range and fast thermal response time. Multiple bead diameters and sensor spec. are available. And they can

be easily incorporated into various housing options because of their small size.

Please note that the ATH30K1R3B3950K thermistor is not designed for direct immersion in water or other electrically conductive or corrosive liquids, due to the non-isolated nature of its leads. Doing so may result in inaccurate resistance readings, damage to the thermistor's leads, or pose a safety hazard.

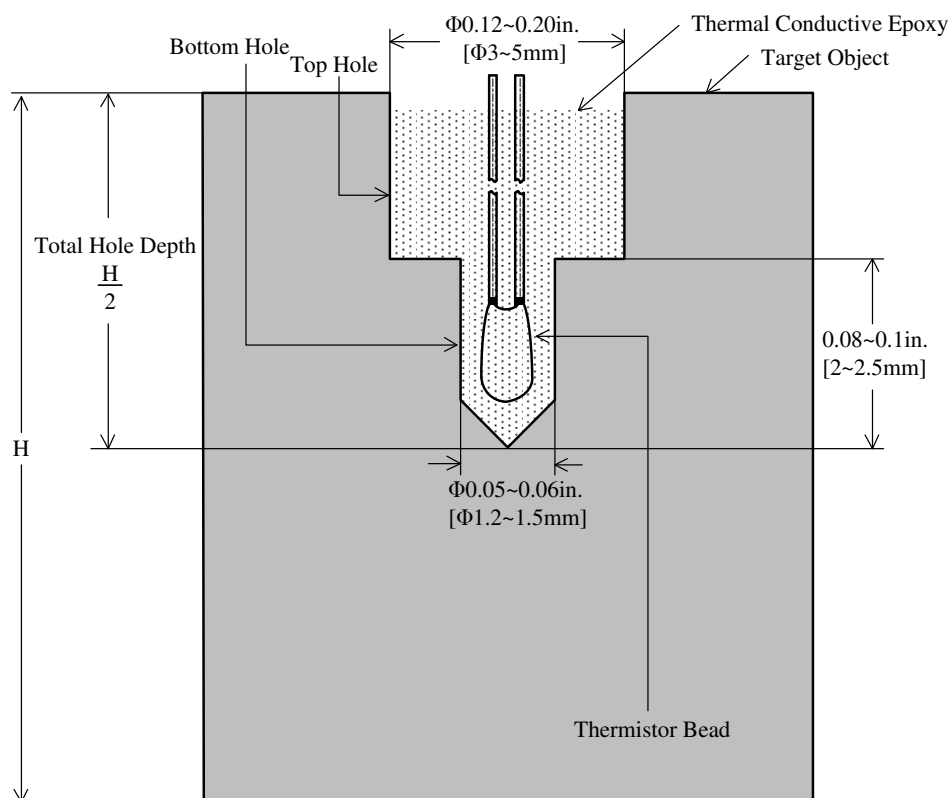


Figure 3. Section View of Recommended Counterbore Hole

### PART NUMBER CONVENTION

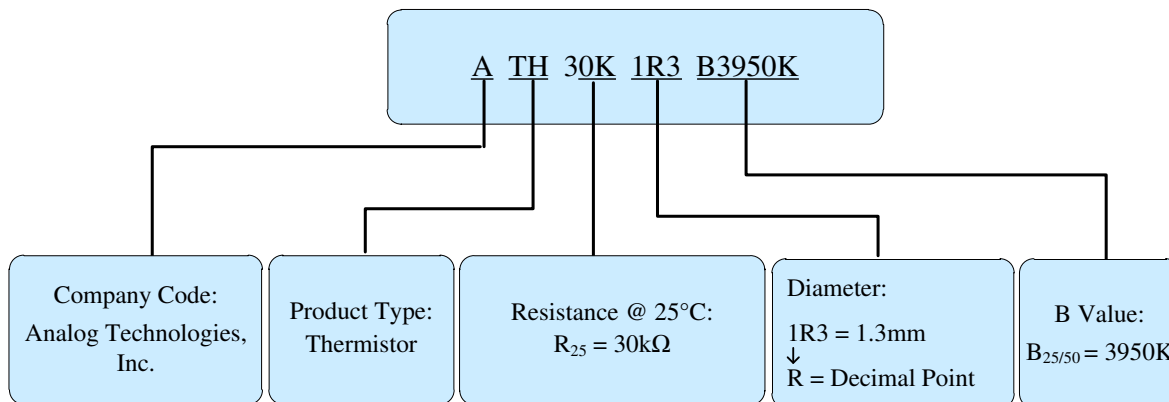


Figure 4. Part Number Convention of ATH30K1R3B3950K



RESISTANCE TEMPERATURE CHARACTERISTICS

B25/50 = 3950K, R25 = 30kΩ, TR = 25°C, ΔRT/RT: ± 1%,

Table with 7 columns: T (°C), Resistance (kΩ) [Minimum, Nominal, Maximum], Relative Resistance Variation at a Specific Temperature (±%), Temperature Measurement Error at a Specific Temperature (±°C), and Temperature Coefficient (%/°C). Rows range from -40°C to -10°C.



B<sub>25/50</sub> = 3950K, R<sub>25</sub> = 30kΩ, T<sub>R</sub> = 25°C, ΔR<sub>T</sub>/R<sub>T</sub>: ± 1%,

T (°C)	Resistance (kΩ)			Relative Resistance Variation at a Specific Temperature (±%)	Temperature Measurement Error at a Specific Temperature (±°C)	Temperature Coefficient (%/°C)
	Minimum	Nominal	Maximum	$\frac{\Delta R_T}{R_T}$	$\Delta T_N = \frac{\Delta R_N}{R_{N+1} - R_{N-1}}$	$\alpha = \frac{R_{N-1} - R_{N+1}}{2 \times R_N}$
-9	141.499	147.555	153.855	2.81	0.43	4.92
-8	134.855	140.489	146.344	2.76	0.42	4.90
-7	128.539	133.778	139.217	2.71	0.41	4.89
-6	122.532	127.402	132.452	2.65	0.40	4.88
-5	116.817	121.341	126.028	2.60	0.39	4.87
-4	111.377	115.578	119.925	2.55	0.38	4.86
-3	106.198	110.097	114.127	2.49	0.37	4.86
-2	101.268	104.884	108.618	2.44	0.36	4.85
-1	96.575	99.926	103.384	2.39	0.35	4.84
0	92.106	95.211	98.410	2.33	0.34	4.83
1	87.852	90.725	93.683	2.28	0.33	4.82
2	83.802	86.460	89.193	2.23	0.32	4.81
3	79.948	82.404	84.927	2.17	0.31	4.80
4	76.280	78.548	80.875	2.12	0.31	4.79
5	72.789	74.881	77.027	2.07	0.30	4.78
6	69.467	71.396	73.372	2.01	0.29	4.76
7	66.308	68.084	69.901	1.96	0.28	4.74
8	63.302	64.936	66.606	1.91	0.27	4.73
9	60.442	61.945	63.478	1.85	0.26	4.75
10	57.674	59.051	60.454	1.80	0.25	4.70
11	55.136	56.400	57.688	1.75	0.24	4.63
12	52.676	53.833	55.011	1.69	0.23	4.65
13	50.336	51.394	52.470	1.64	0.22	4.63
14	48.110	49.076	50.057	1.59	0.22	4.61
15	45.993	46.874	47.767	1.53	0.21	4.58
16	43.978	44.780	45.591	1.48	0.20	4.56
17	42.062	42.790	43.526	1.43	0.19	4.54
18	40.239	40.898	41.563	1.37	0.18	4.51
19	38.503	39.099	39.699	1.32	0.17	4.49
20	36.851	37.388	37.928	1.27	0.16	4.47
21	35.279	35.760	36.245	1.21	0.15	4.44
22	33.781	34.212	34.645	1.16	0.14	4.42



$$B_{25/50} = 3950K, R_{25} = 30k\Omega, T_R = 25^\circ C, \frac{\Delta R_T}{R_T} : \pm 1\%$$

T (°C)	Resistance (kΩ)			Relative Resistance Variation at a Specific Temperature (±%)	Temperature Measurement Error at a Specific Temperature (±°C)	Temperature Coefficient (%/°C)
	Minimum	Nominal	Maximum	$\frac{\Delta R_T}{R_T}$	$\Delta T_N = \frac{\Delta R_N}{R_{N+1} - R_{N-1}}$	$\alpha = \frac{R_{N-1} - R_{N+1}}{2 \times R_N}$
23	32.354	32.738	33.124	1.11	0.13	4.39
24	30.995	31.336	31.677	1.05	0.12	4.37
25	29.701	30.001	30.301	1.00	0.12	4.34
26	28.417	28.729	29.041	1.03	0.13	4.32
27	27.195	27.517	27.840	1.05	0.14	4.30
28	26.032	26.363	26.695	1.08	0.15	4.27
29	24.924	25.263	25.603	1.10	0.16	4.25
30	23.869	24.214	24.561	1.13	0.17	4.23
31	22.863	23.213	23.566	1.15	0.18	4.21
32	21.905	22.259	22.616	1.18	0.19	4.19
33	20.992	21.348	21.709	1.20	0.20	4.17
34	20.120	20.479	20.843	1.23	0.21	4.15
35	19.289	19.650	20.015	1.25	0.22	4.13
36	18.496	18.857	19.224	1.28	0.23	4.11
37	17.740	18.101	18.467	1.31	0.25	4.09
38	17.017	17.378	17.744	1.33	0.26	4.07
39	16.327	16.687	17.053	1.36	0.27	4.05
40	15.669	16.027	16.391	1.38	0.28	4.03
41	15.039	15.395	15.758	1.41	0.29	4.01
42	14.438	14.792	15.153	1.43	0.30	3.99
43	13.864	14.214	14.573	1.46	0.31	3.97
44	13.314	13.662	14.018	1.48	0.33	3.95
45	12.789	13.134	13.486	1.51	0.34	3.94
46	12.287	12.628	12.977	1.53	0.35	3.92
47	11.807	12.144	12.489	1.56	0.36	3.90
48	11.348	11.681	12.022	1.59	0.37	3.88
49	10.909	11.237	11.575	1.61	0.38	3.86
50	10.488	10.813	11.146	1.64	0.40	3.84
51	10.086	10.406	10.735	1.66	0.41	3.83
52	9.701	10.016	10.341	1.69	0.42	3.81
53	9.332	9.643	9.963	1.71	0.43	3.79
54	8.979	9.285	9.600	1.74	0.44	3.77



$B_{25/50} = 3950K, R_{25} = 30k\Omega, T_R = 25^\circ C, \frac{\Delta R_T}{R_T}: \pm 1\%,$

T (°C)	Resistance (kΩ)			Relative Resistance Variation at a Specific Temperature (±%)	Temperature Measurement Error at a Specific Temperature (±°C)	Temperature Coefficient (%/°C)
	Minimum	Nominal	Maximum	$\frac{\Delta R_T}{R_T}$	$\Delta T_N = \frac{\Delta R_N}{R_{N+1} - R_{N-1}}$	$\alpha = \frac{R_{N-1} - R_{N+1}}{2 \times R_N}$
55	8.641	8.942	9.253	1.76	0.46	3.75
56	8.317	8.614	8.920	1.79	0.47	3.73
57	8.007	8.299	8.600	1.81	0.48	3.72
58	7.711	7.997	8.293	1.84	0.49	3.70
59	7.426	7.708	7.999	1.87	0.51	3.68
60	7.153	7.430	7.717	1.89	0.52	3.66
61	6.892	7.164	7.446	1.92	0.53	3.64
62	6.642	6.909	7.186	1.94	0.54	3.62
63	6.402	6.664	6.936	1.97	0.56	3.60
64	6.172	6.429	6.696	1.99	0.57	3.59
65	5.951	6.203	6.466	2.02	0.58	3.56
66	5.739	5.987	6.245	2.04	0.60	3.54
67	5.536	5.779	6.033	2.07	0.61	3.52
68	5.341	5.580	5.829	2.09	0.63	3.49
69	5.155	5.389	5.633	2.12	0.64	3.48
70	4.975	5.205	5.444	2.15	0.65	3.47
71	4.803	5.028	5.263	2.17	0.66	3.45
72	4.638	4.858	5.089	2.20	0.68	3.42
73	4.479	4.696	4.922	2.22	0.69	3.40
74	4.327	4.539	4.761	2.25	0.70	3.39
75	4.181	4.388	4.606	2.27	0.72	3.36
76	4.040	4.244	4.457	2.30	0.73	3.35
77	3.905	4.104	4.314	2.32	0.75	3.33
78	3.775	3.971	4.176	2.35	0.77	3.30
79	3.650	3.842	4.043	2.37	0.78	3.29
80	3.530	3.718	3.915	2.40	0.79	3.27
81	3.415	3.599	3.792	2.43	0.81	3.25
82	3.304	3.484	3.674	2.45	0.82	3.24
83	3.197	3.373	3.559	2.48	0.83	3.22
84	3.094	3.267	3.449	2.50	0.85	3.18
85	2.995	3.165	3.343	2.53	0.87	3.18
86	2.900	3.066	3.241	2.55	0.88	3.16



B<sub>25/50</sub> = 3950K, R<sub>25</sub> = 30kΩ, T<sub>R</sub> = 25°C, ΔR<sub>T</sub>/R<sub>T</sub>: ± 1%,

T (°C)	Resistance (kΩ)			Relative Resistance Variation at a Specific Temperature (±%)	Temperature Measurement Error at a Specific Temperature (±°C)	Temperature Coefficient (%/°C)
	Minimum	Nominal	Maximum	$\frac{\Delta R_T}{R_T}$	$\Delta T_N = \frac{\Delta R_N}{R_{N+1} - R_{N-1}}$	$\alpha = \frac{R_{N-1} - R_{N+1}}{2 \times R_N}$
87	2.808	2.971	3.142	2.58	0.89	3.15
88	2.720	2.879	3.047	2.60	0.90	3.14
89	2.634	2.790	2.955	2.63	0.92	3.12
90	2.552	2.705	2.867	2.65	0.94	3.09
91	2.473	2.623	2.781	2.68	0.96	3.07
92	2.397	2.544	2.699	2.71	0.97	3.07
93	2.323	2.467	2.619	2.73	0.98	3.06
94	2.252	2.393	2.542	2.76	1.00	3.03
95	2.184	2.322	2.468	2.78	1.01	3.01
96	2.118	2.253	2.396	2.81	1.02	3.02
97	2.054	2.186	2.327	2.83	1.04	3.00
98	1.992	2.122	2.260	2.86	1.06	2.97
99	1.933	2.060	2.195	2.88	1.07	2.96
100	1.875	2.000	2.132	2.91	1.08	2.98
101	1.820	1.941	2.071	2.93	1.09	2.96
102	1.766	1.885	2.012	2.96	1.12	2.92
103	1.714	1.831	1.955	2.99	1.13	2.92
104	1.664	1.778	1.900	3.01	1.13	2.92
105	1.615	1.727	1.847	3.04	1.16	2.90
106	1.568	1.678	1.796	3.06	1.18	2.89
107	1.523	1.630	1.745	3.09	1.18	2.88
108	1.479	1.584	1.697	3.11	1.21	2.84
109	1.436	1.540	1.650	3.14	1.22	2.86
110	1.395	1.496	1.605	3.16	1.22	2.87
111	1.355	1.454	1.561	3.19	1.26	2.82
112	1.317	1.414	1.518	3.21	1.26	2.83
113	1.279	1.374	1.476	3.24	1.26	2.84
114	1.243	1.336	1.436	3.27	1.29	2.81
115	1.208	1.299	1.397	3.29	1.29	2.81
116	1.174	1.263	1.359	3.32	1.32	2.77
117	1.141	1.229	1.323	3.34	1.34	2.77
118	1.109	1.195	1.287	3.37	1.33	2.80



$B_{25/50} = 3950K, R_{25} = 30k\Omega, T_R = 25^\circ C, \frac{\Delta R_T}{R_T} : \pm 1\%$ ,

T (°C)	Resistance (kΩ)			Relative Resistance Variation at a Specific Temperature (±%)	Temperature Measurement Error at a Specific Temperature (±°C)	Temperature Coefficient (%/°C)
	Minimum	Nominal	Maximum	$\frac{\Delta R_T}{R_T}$	$\Delta T_N = \frac{\Delta R_N}{R_{N+1} - R_{N-1}}$	$\alpha = \frac{R_{N-1} - R_{N+1}}{2 \times R_N}$
119	1.078	1.162	1.253	3.39	1.35	2.80
120	1.048	1.130	1.219	3.42	1.38	2.74
121	1.019	1.100	1.187	3.44	1.40	2.73
122	0.991	1.070	1.155	3.47	1.39	2.76
123	0.963	1.041	1.124	3.49	1.41	2.74
124	0.937	1.013	1.095	3.52	1.44	2.71
125	0.911	0.986	1.066	3.55	1.44	2.74
126	0.886	0.959	1.038	3.57	1.43	2.76
127	0.862	0.933	1.010	3.60	1.45	2.73
128	0.839	0.908	0.984	3.62	1.48	2.70
129	0.816	0.884	0.958	3.65	1.51	2.66
130	0.794	0.861	0.933	3.67	1.51	2.67
131	0.772	0.838	0.909	3.70	1.52	2.68
132	0.752	0.816	0.886	3.72	1.56	2.63
133	0.731	0.795	0.863	3.75	1.57	2.64
134	0.712	0.774	0.841	3.77	1.54	2.71
135	0.693	0.753	0.819	3.80	1.58	2.66
136	0.675	0.734	0.798	3.83	1.62	2.59
137	0.657	0.715	0.778	3.85	1.59	2.66
138	0.639	0.696	0.758	3.88	1.61	2.66
139	0.623	0.678	0.739	3.90	1.66	2.58
140	0.606	0.661	0.720	3.93	1.68	2.57
141	0.590	0.644	0.702	3.95	1.70	2.56
142	0.575	0.628	0.685	3.98	1.72	2.55
143	0.560	0.612	0.668	4.00	1.69	2.61
144	0.546	0.596	0.651	4.03	1.69	2.60
145	0.532	0.581	0.635	4.05	1.78	2.50
146	0.518	0.567	0.620	4.08	1.76	2.56
147	0.505	0.552	0.604	4.11	1.77	2.54
148	0.492	0.539	0.590	4.13	1.81	2.50
149	0.480	0.525	0.575	4.16	1.83	2.48
150	0.468	0.513	0.561	4.18	1.86	2.44





B<sub>25/50</sub> = 3950K, R<sub>25</sub> = 30kΩ, T<sub>R</sub> = 25°C, ΔR<sub>T</sub>/R<sub>T</sub>: ± 1%,

T (°C)	Resistance (kΩ)			Relative Resistance Variation at a Specific Temperature (±%)	Temperature Measurement Error at a Specific Temperature (±°C)	Temperature Coefficient (%/°C)
	Minimum	Nominal	Maximum	$\frac{\Delta R_T}{R_T}$	$\Delta T_N = \frac{\Delta R_N}{R_{N+1} - R_{N-1}}$	$\alpha = \frac{R_{N-1} - R_{N+1}}{2 \times R_N}$
151	0.456	0.500	0.548	4.21	1.84	2.50
152	0.445	0.488	0.535	4.23	1.88	2.46
153	0.434	0.476	0.522	4.26	1.83	2.52
154	0.423	0.464	0.510	4.28	1.89	2.48
155	0.413	0.453	0.498	4.31	2.02	2.32
156	0.403	0.443	0.486	4.33	1.98	2.37
157	0.393	0.432	0.475	4.36	1.95	2.43
158	0.384	0.422	0.464	4.39	2.00	2.37
159	0.374	0.412	0.453	4.41	1.98	2.43
160	0.365	0.402	0.443	4.44	2.05	2.36
161	0.357	0.393	0.433	4.46	2.11	2.29
162	0.348	0.384	0.423	4.49	2.08	2.34
163	0.340	0.375	0.414	4.51	2.18	2.27
164	0.332	0.367	0.404	4.54	2.12	2.32
165	0.325	0.358	0.396	4.56	2.09	2.37
166	0.317	0.350	0.387	4.59	2.33	2.14
167	0.310	0.343	0.378	4.61	2.27	2.19
168	0.303	0.335	0.370	4.64	2.23	2.24
169	0.296	0.328	0.362	4.67	2.36	2.13
170	0.290	0.321	0.355	4.69	2.32	2.18
171	0.284	0.314	0.347	4.72	2.25	2.23
172	0.277	0.307	0.340	4.74	2.25	2.28
173	0.271	0.300	0.333	4.77	2.38	2.17
174	0.265	0.294	0.326	4.79	2.54	2.04
175	0.260	0.288	0.319	4.82	2.46	2.08
176	0.254	0.282	0.313	4.84	2.46	2.13
177	0.249	0.276	0.306	4.87	2.59	1.99
178	0.244	0.271	0.300	4.89	2.55	2.03
179	0.239	0.265	0.294	4.92	2.50	2.08
180	0.234	0.260	0.288	4.95	2.45	2.12
181	0.229	0.254	0.283	4.97	2.45	2.17
182	0.224	0.249	0.277	5.00	2.94	1.81



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T (°C)	Resistance (kΩ)			Relative Resistance Variation at a Specific Temperature (±%)	Temperature Measurement Error at a Specific Temperature (±°C)	Temperature Coefficient (%/°C)
	Minimum	Nominal	Maximum	$\frac{\Delta R_T}{R_T}$	$\Delta T_N = \frac{\Delta R_N}{R_{N+1} - R_{N-1}}$	$\alpha = \frac{R_{N-1} - R_{N+1}}{2 \times R_N}$
183	0.220	0.245	0.272	5.02	2.89	1.84
184	0.216	0.240	0.267	5.05	2.55	2.08
185	0.211	0.235	0.262	5.07	2.83	1.91
186	0.207	0.231	0.257	5.10	2.78	1.95
187	0.203	0.226	0.252	5.12	2.72	1.99
188	0.199	0.222	0.247	5.15	3.00	1.80
189	0.195	0.218	0.243	5.17	3.00	1.83
190	0.192	0.214	0.238	5.20	2.88	1.87
191	0.188	0.210	0.234	5.23	2.88	1.90
192	0.185	0.206	0.230	5.25	2.81	1.94
193	0.181	0.202	0.226	5.28	3.21	1.73
194	0.178	0.199	0.222	5.30	3.14	1.76
195	0.175	0.195	0.218	5.33	3.07	1.79
196	0.171	0.192	0.214	5.35	3.07	1.82
197	0.168	0.188	0.210	5.38	3.00	1.86
198	0.165	0.185	0.207	5.40	3.50	1.62
199	0.162	0.182	0.203	5.43	3.42	1.65
200	0.160	0.179	0.200	5.45	2.86	1.96
201	0.157	0.175	0.196	5.48	2.79	2.00
202	0.154	0.172	0.193	5.51	3.25	1.74
203	0.151	0.169	0.190	5.53	3.90	1.48
204	0.149	0.167	0.187	5.56	3.80	1.50
205	0.146	0.164	0.184	5.58	3.17	1.83
206	0.144	0.161	0.181	5.61	3.08	1.86
207	0.141	0.158	0.178	5.63	3.70	1.58
208	0.139	0.156	0.175	5.66	3.60	1.60
209	0.136	0.153	0.172	5.68	3.60	1.63
210	0.134	0.151	0.169	5.71	3.50	1.66
211	0.132	0.148	0.166	5.73	3.40	1.69
212	0.130	0.146	0.164	5.76	3.40	1.71
213	0.127	0.143	0.161	5.79	3.40	1.75
214	0.125	0.141	0.158	5.81	4.13	1.42



$B_{25/50} = 3950K, R_{25} = 30k\Omega, T_R = 25^\circ C, \frac{\Delta R_T}{R_T} : \pm 1\%$ ,

T (°C)	Resistance (kΩ)			Relative Resistance Variation at a Specific Temperature (±%)	Temperature Measurement Error at a Specific Temperature (±°C)	Temperature Coefficient (%/°C)
	Minimum	Nominal	Maximum	$\frac{\Delta R_T}{R_T}$	$\Delta T_N = \frac{\Delta R_N}{R_{N+1} - R_{N-1}}$	$\alpha = \frac{R_{N-1} - R_{N+1}}{2 \times R_N}$
215	0.123	0.139	0.156	5.84	3.30	1.80
216	0.121	0.136	0.153	5.86	3.20	1.84
217	0.119	0.134	0.151	5.89	4.00	1.49
218	0.117	0.132	0.148	5.91	3.87	1.52
219	0.115	0.130	0.146	5.94	3.87	1.54
220	0.113	0.128	0.144	5.96	3.10	1.95
221	0.111	0.125	0.141	5.99	3.00	2.00
222	0.109	0.123	0.139	6.01	3.75	1.63
223	0.108	0.121	0.137	6.04	3.63	1.65
224	0.106	0.119	0.135	6.07	3.63	1.68
225	0.104	0.117	0.132	6.09	3.50	1.71
226	0.102	0.115	0.130	6.12	3.50	1.74
227	0.100	0.113	0.128	6.14	3.50	1.77
228	0.099	0.111	0.126	6.17	4.50	1.35
229	0.097	0.110	0.124	6.19	4.50	1.36
230	0.095	0.108	0.122	6.22	3.38	1.85
231	0.094	0.106	0.120	6.24	3.25	1.89
232	0.092	0.104	0.118	6.27	3.25	1.92
233	0.090	0.102	0.116	6.29	4.33	1.47
234	0.089	0.101	0.114	6.32	4.17	1.49
235	0.087	0.099	0.112	6.35	3.13	2.02
236	0.086	0.097	0.110	6.37	3.00	2.06
237	0.084	0.095	0.108	6.40	4.00	1.58
238	0.083	0.094	0.106	6.42	3.83	1.60
239	0.081	0.092	0.104	6.45	2.88	2.17
240	0.080	0.090	0.102	6.47	3.67	1.67
241	0.078	0.089	0.100	6.50	3.67	1.69
242	0.077	0.087	0.099	6.52	2.75	2.30
243	0.075	0.085	0.097	6.55	3.67	1.76
244	0.074	0.084	0.095	6.57	3.50	1.79
245	0.072	0.082	0.093	6.60	3.50	1.83
246	0.071	0.081	0.092	6.63	3.50	1.85



B<sub>25/50</sub> = 3950K, R<sub>25</sub> = 30kΩ, T<sub>R</sub> = 25°C, ΔR<sub>T</sub>/R<sub>T</sub>: ± 1%,

Table with 7 columns: T (°C), Resistance (kΩ) [Minimum, Nominal, Maximum], Relative Resistance Variation at a Specific Temperature (±%), Temperature Measurement Error at a Specific Temperature (±°C), and Temperature Coefficient (%/°C). Rows for temperatures 247, 248, 249, and 250.

To ensure optimal performance and reliability, it is recommended to follow proper storage procedures for the ATH30K1R3B3950K thermistor. Here are some guidelines:

- 1. Store the thermistors only in their original packaging and do not open the package before storage.
2. The recommended storage temperature is between -25°C to +45°C, with a relative humidity of less than 75% on average and a maximum of 95%. Dew precipitation is not allowed.
3. Do not expose the thermistors to heat or direct sunlight during storage as this may cause deformation of the packing material or sticking of the thermistors, leading to difficulties during mounting.
4. Avoid contamination of the thermistor's surface during storage, handling, and processing.
5. Do not store the thermistor in harmful environments containing corrosive gases like SOx, Cl, etc.
6. After opening the factory seals, such as polyvinyl-sealed packages, it is recommended to use the thermistors as soon as possible.
7. For optimal soldering performance, it is recommended to solder the thermistors within 12 months for SMDs and 24 months for leaded components after shipment from the manufacturer, ATI.

When handling NTC thermistors, it is important to prevent them from being dropped, as this could cause chip-offs and damage to the components. To avoid any damage, components should not be touched with bare hands, and gloves are recommended. It is also important to prevent any contamination of the thermistor surface during handling to ensure accurate readings.

When soldering the ATH30K1R3B3950K thermistor, it is important to use a resin-type or non-activated flux. Insufficient preheating can cause ceramic cracks, so proper preheating is recommended. Rapid cooling by dipping in solvent is not recommended. It is also recommended to completely remove any flux residue after soldering to prevent contamination or damage to the thermistor.

ORDERING INFORMATION

Table with 2 columns: Part Number (ATH30K1R3B3950K) and Buy Now (with shopping cart icons).

\*: both [shopping cart icons] are our online store icons. Our products can be ordered from either one of them with the same pricing and delivery time.



**NOTICE**

1. It is important to carefully read and follow the warnings, cautions, and product-specific notes provided with electronic components. These instructions are designed to ensure the safe and proper use of the component and to prevent damage to the component or surrounding equipment. Failure to follow these instructions could result in malfunction or failure of the component, damage to surrounding equipment, or even injury or harm to individuals. Always take the necessary precautions and seek professional assistance if unsure about proper use or handling of electronic components.
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