

G5K3976 Radial Glass Thermistor



- Glass hermetic encapsulation with high resistance to humid environments
- Wide operating temperature range
- High stability and performance in harsh environmental conditions
- Fast response time
- RoHS Compliant

DESCRIPTION

The NTC Chip hermetically sealed in a glass encapsulation package

FEATURES

- Hermetically sealed glass package
- Proven Stability and Reliability
- Available in $\pm 1\%$, $\pm 2\%$, $\pm 3\%$, $\pm 5\%$ and $\pm 10\%$ tolerance @ $+25^\circ\text{C}$
- Fast time response
- Low cost
- Temperature range -40°C to $+250^\circ\text{C}$

APPLICATIONS

- Air conditioning systems
- Refrigeration control
- Assembly into probes for a wide variety of applications
- In environments where thermal shock and humidity are present
- Hot water boiler systems
- Sensor for engine temperature control

PERFORMANCE SPECS

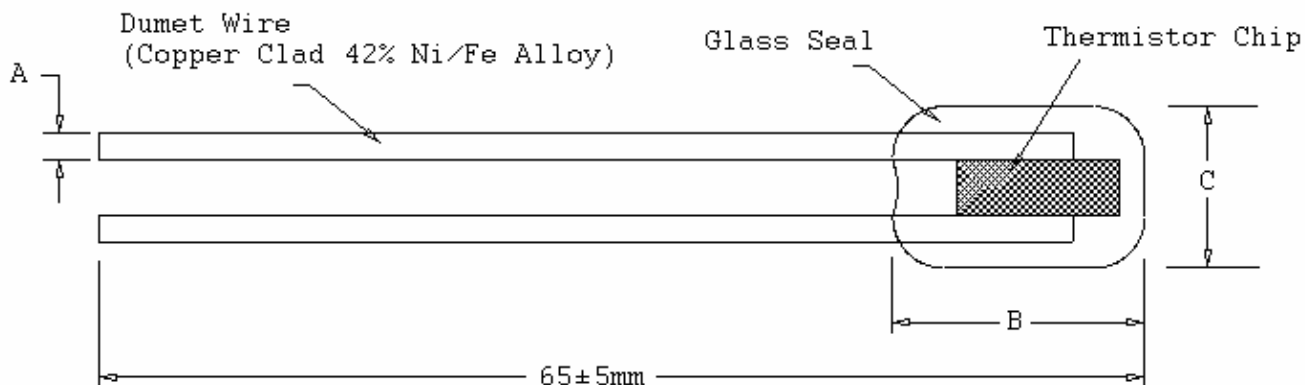
Parameters	Units	Value
Resistance @ $+25^\circ\text{C}$	Ohms	5,000
Resistance tolerance @ 25°C	%	± 1
Beta Value 25/85	K	3976
Tolerance on Beta Value 25/85	%	± 2
Series A Dissipation Constant in still air	mW/ $^\circ\text{C}$	1.3
Series B Dissipation Constant in still air	mW/ $^\circ\text{C}$	0.8
Series C Dissipation Constant in still air	mW/ $^\circ\text{C}$	0.5
Series A Time response in Liquids	Seconds	0.9~1.1
Series B Time response in Liquids	Seconds	0.3~0.4
Series C Time response in Liquids	Seconds	0.18~0.2

Reliability Tests	Standard	Test Condition	Delta R
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Storage in Dry Heat	IEC 60068-2-2	Storage temperature: +250°C Duration: 1000 hours	< 3%
Storage in Damp Heat	IEC 60068-2-3	Temperature of air is 50°C & RH 95% Duration: 56 days.	< 2%
Rapid Temperature Cycling	IEC 60068-2-14	Lower Test Temperature -55°C Upper Test Temperature +200°C Number of Cycles 1000	< 2%

MECHANICAL DETAILS



	Dimensions		
	A	B	C
Series A Thermistor	0.3mm	4mm Max	2.5mm Max
Series B Thermistor	0.2mm	3mm Max	1.5mm Max
Series C Thermistor	0.15mm	2mm Max	0.9mm Max

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RESISTANCE V TEMPERATURE TABLE

Temp. °C	KOhms
-40	168.5
-39	157.7
-38	147.7
-37	138.4
-36	129.7
-35	121.6
-34	114
-33	107
-32	100.5
-31	94.36
-30	88.66
-29	83.34
-28	78.37
-27	73.73
-26	69.39
-25	65.33
-24	61.54
-23	57.98
-22	54.66
-21	51.54
-20	48.62
-19	45.89
-18	43.32
-17	40.91
-16	38.65
-15	36.53
-14	34.54
-13	32.67
-12	30.91
-11	29.26
-10	27.7
-9	26.24
-8	24.86
-7	23.56
-6	22.34
-5	21.19
-4	20.1
-3	19.08
-2	18.11
-1	17.2
0	16.34
1	15.53
2	14.76
3	14.04

Temp. °C	KOhms
4	13.35
5	12.71
6	12.09
7	11.52
8	10.97
9	10.45
10	9.956
11	9.491
12	9.05
13	8.632
14	8.235
15	7.859
16	7.502
17	7.164
18	6.842
19	6.537
20	6.247
21	5.972
22	5.71
23	5.462
24	5.225
25	5
26	4.786
27	4.582
28	4.388
29	4.204
30	4.028
31	3.86
32	3.701
33	3.548
34	3.403
35	3.265
36	3.133
37	3.007
38	2.887
39	2.772
40	2.662
41	2.558
42	2.458
43	2.362
44	2.271
45	2.184
46	2.1
47	2.02

Temp. °C	KOhms
48	1.944
49	1.871
50	1.801
51	1.734
52	1.67
53	1.608
54	1.55
55	1.493
56	1.439
57	1.387
58	1.338
59	1.29
60	1.244
61	1.2
62	1.158
63	1.118
64	1.079
65	1.042
66	1.006
67	0.9719
68	0.9389
69	0.9072
70	0.8768
71	0.8475
72	0.8193
73	0.7922
74	0.7661
75	0.7411
76	0.7169
77	0.6937
78	0.6714
79	0.6498
80	0.6291
81	0.6092
82	0.5899
83	0.5714
84	0.5535
85	0.5363
86	0.5197
87	0.5037
88	0.4883
89	0.4734
90	0.4591
91	0.4452

Temp. °C	KOhms
92	0.4319
93	0.419
94	0.4065
95	0.3945
96	0.3829
97	0.3717
98	0.3609
99	0.3504
100	0.3403
101	0.3305
102	0.3211
103	0.312
104	0.3031
105	0.2946
106	0.2863
107	0.2784
108	0.2706
109	0.2632
110	0.2559
111	0.2489
112	0.2422
113	0.2356
114	0.2293
115	0.2231
116	0.2171
117	0.2114
118	0.2058
119	0.2004
120	0.1951
121	0.19
122	0.1851
123	0.1803
124	0.1757
125	0.1712
126	0.1668
127	0.1626
128	0.1585
129	0.1545
130	0.1506
131	0.1469
132	0.1432
133	0.1397
134	0.1363
135	0.1329

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136	0.1297
137	0.1266
138	0.1235
139	0.1206
140	0.1177
141	0.1149
142	0.1122
143	0.1095
144	0.1069
145	0.1044
146	0.102
147	0.0996
148	0.0974
149	0.0951
150	0.0929
151	0.0908
152	0.0888
153	0.0868
154	0.0848
155	0.0829
156	0.0811
157	0.0793
158	0.0775
159	0.0758
160	0.0742
161	0.0726
162	0.071
163	0.0695
164	0.068

165	0.0665
166	0.0651
167	0.0637
168	0.0624
169	0.061
170	0.0598
171	0.0585
172	0.0573
173	0.0561
174	0.055
175	0.0538
176	0.0527
177	0.0517
178	0.0506
179	0.0496
180	0.0486
181	0.0476
182	0.0467
183	0.0458
184	0.0448
185	0.044
186	0.0431
187	0.0423
188	0.0414
189	0.0406
190	0.0399
191	0.0391
192	0.0383
193	0.0376

194	0.0369
195	0.0362
196	0.0355
197	0.0349
198	0.0342
199	0.0336
200	0.0329
201	0.0323
202	0.0317
203	0.0312
204	0.0306
205	0.03
206	0.0295
207	0.029
208	0.0284
209	0.0279
210	0.0274
211	0.027
212	0.0265
213	0.026
214	0.0256
215	0.0251
216	0.0247
217	0.0242
218	0.0238
219	0.0234
220	0.023
221	0.0226
222	0.0222

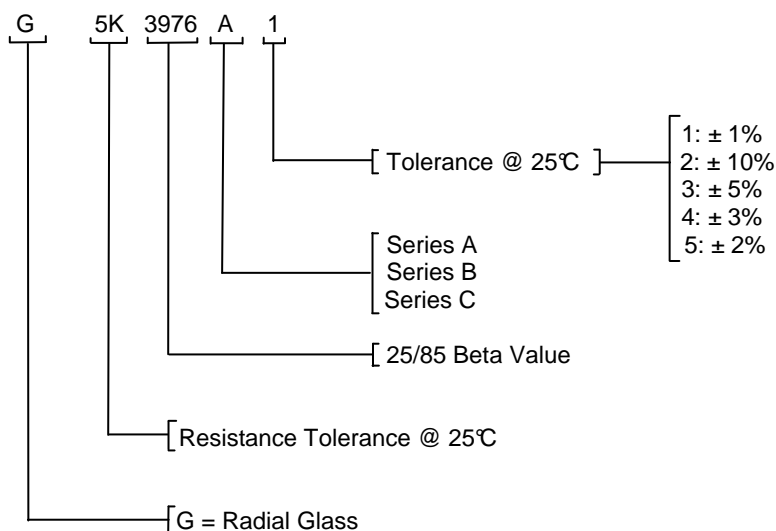
223	0.0219
224	0.0215
225	0.0211
226	0.0208
227	0.0204
228	0.0201
229	0.0198
230	0.0194
231	0.0191
232	0.0188
233	0.0185
234	0.0182
235	0.0179
236	0.0176
237	0.0173
238	0.0171
239	0.0168
240	0.0165
241	0.0163
242	0.016
243	0.0158
244	0.0155
245	0.0153
246	0.015
247	0.0148
248	0.0146
249	0.0143
250	0.0141

ORDERING INFORMATION

G5K3976 Radial Glass Thermistor

Part Number	Description	Ω @25°C	MOQ
G5K3976A1	Radial Glass Thermistor Series A	5,000	10,000*
G5K3976B1	Radial Glass Thermistor Series B	5,000	10,000*
G5K3976C1	Radial Glass Thermistor Series C	5,000	10,000*

* For quantities less than Minimum Order Quantity – Contact Distribution



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