



MEAS HD DO-35 SERIES THERMISTOR 5K BETA _{25/85} 3950

- High Stability DO-35 Thermistor
- Highly Density (HD) electroceramic thermistor
- Hermetically sealed elements, glass encapsulation
- Axial Leads for PCB mounting
- High temperature devices for applications up to +300°C
- RoHS Compliant
- Copper clad steel (CCS Wire)

Features

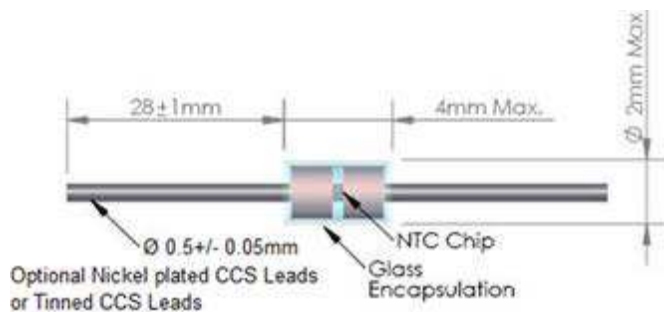
- Hermetically sealed glass package
- Proven Stability at elevated temperatures
- High temperature capability to +300°C
- 24 AWG Nickel Plated CCS Wire
- Cost effective for high volume applications
- Temp range (Nickel plated) -40°C to +300 °C
- Temp range (Tinned) -40 °C to +200 °C

Applications

- HVAC and refrigeration probe assemblies
- High humidity due to glass protection
- Consumer electronics
- PCB temperature sensing
- Air conditioning

TE has recently developed new advanced ceramic processing techniques and proprietary formulations for the manufacture of high-stability electroceramic thermistor materials. These materials are now used in a select range of DO-35 thermistor sensor components. The newly developed high-density thermistor chip is hermetically sealed in a glass (DO-35 diode style) package to provide protection where high humidity is present and long-term performance is required.

Dimensions



Electrical Specifications

PARAMETERS	UNITS	VALUE
Resistance @ +25°C	Ohms	5,000
Resistance tolerance @ +25°C	%	± 1
Beta Value 25/85	K	3950
Tolerance on Beta Value 25/85	%	± 1
Time response in liquid	Seconds	Approx.2
Dissipation Constant in still air	mW/°C	1.9
Operating Temperature (Nickel plated CCS Leads)	°C	-40 to +300
Operating Temperature (Tinned CCS Leads)	°C	-40 to +200
Max' Permissible Current (25°C, Still Air)	A max	0.25mA
Max' Power Rating (25°C, Still Air)	P max	110 mW

General Test

TEST ITEM	PERFORMANCE REQUIREMENTS	TEST CONDITION
A. Appearance	No Cracking	Visual examination
B. Dimension	Dimension tolerances	Caliper, Micrometer
C. Resistance (R25)	5K±1%	At zero power, 25°C.
D. Beta Value	B25/85=3950K±1%	B= $\frac{\ln R_{25} - \ln R_{85}}{1/298.15 - 1/358.15}$
		R25=Resistance at 25.0±0.1°C
		R85=Resistance at 85.0±0.1°C
E. Thermal time constant (τ)	Approx.2 sec	Measured in stirred water
F. Thermal Dissipation Constant (δ)	Approx.1.9m W/°C	Measured in still air, normal temp

Reliability

TEST ITEM	TEST METHODS	CRITERIA
A. Low temperature storage	After placing a thermistor in -40°C±3°C for 1000 hours, keep it in normal temperature and humidity for one hour.	$\Delta R/R \leq 2\%$ $\Delta B/B \leq 1\%$
B. High temperature storage	Tinned Version: After placing a thermistor in 200°C±3°C for 1000 hours, keep it in normal temperature and humidity for one hour.	$\Delta R/R \leq 2\%$ $\Delta B/B \leq 1\%$
	Nickel Plated Version: After placing a thermistor in 300°C±3°C for 1000 hours, keep it in normal temperature and humidity for one hour.	$\Delta R/R \leq 3\%$ $\Delta B/B \leq 2\%$
C. Thermal cycle test	After 100 cycles test under the conditions as shown below, keep the thermistor in normal temperature and humidity for one hour.	$\Delta R/R \leq 2\%$ $\Delta B/B \leq 1\%$
80°C±3°C (in air) Normal temp (in air) -20°C±3°C (in air)		
D. Humidity test	After placing a thermistor in 40°C±2°C, 90~95%RH, for 1000 hours, keep it in normal temperature and humidity for one hour.	$\Delta R/R \leq 2\%$ $\Delta B/B \leq 1\%$

Resistance vs. Temperature Table

R25=5KΩ±1% B25/85=3950K±1%

TEMP. (°C)	MINIMUM (KΩ)	NOMINAL (KΩ)	MAXIMUM (KΩ)	ALPHA(%/°C)
-40.0	159.784	168.655	178.000	-6.67
-39.0	149.645	157.822	166.429	-6.62
-38.0	140.215	147.755	155.684	-6.57
-37.0	131.440	138.394	145.702	-6.53
-36.0	123.270	129.687	136.424	-6.48
-35.0	115.660	121.583	127.796	-6.43
-34.0	108.569	114.037	119.769	-6.39
-33.0	101.957	107.007	112.296	-6.35
-32.0	95.790	100.455	105.337	-6.30
-31.0	90.034	94.345	98.852	-6.26
-30.0	84.660	88.645	92.807	-6.21
-29.0	79.641	83.324	87.170	-6.17
-28.0	74.950	78.357	81.910	-6.13
-27.0	70.565	73.716	77.000	-6.09
-26.0	66.463	69.378	72.414	-6.05
-25.0	62.625	65.322	68.129	-6.01
-24.0	59.032	61.528	64.124	-5.97
-23.0	55.666	57.978	60.379	-5.93
-22.0	52.514	54.654	56.875	-5.89
-21.0	49.558	51.540	53.596	-5.85
-20.0	46.787	48.623	50.526	-5.81
-19.0	44.188	45.888	47.649	-5.77
-18.0	41.748	43.324	44.954	-5.74
-17.0	39.458	40.917	42.427	-5.70
-16.0	37.307	38.659	40.057	-5.66
-15.0	35.285	36.539	37.833	-5.63
-14.0	33.386	34.547	35.746	-5.59
-13.0	31.599	32.676	33.786	-5.55
-12.0	29.919	30.917	31.946	-5.52
-11.0	28.337	29.263	30.216	-5.49
-10.0	26.849	27.707	28.589	-5.45
-9.0	25.447	26.242	27.060	-5.42

Resistance vs. Temperature Table

R25=5KΩ±1% B25/85=3950K±1%

TEMP. (°C)	MINIMUM (KΩ)	NOMINAL (KΩ)	MAXIMUM (KΩ)	ALPHA(%/°C)
-8.0	24.127	24.864	25.621	-5.38
-7.0	22.882	23.566	24.267	-5.35
-6.0	21.709	22.342	22.992	-5.32
-5.0	20.603	21.190	21.792	-5.28
-4.0	19.559	20.103	20.660	-5.25
-3.0	18.574	19.078	19.594	-5.22
-2.0	17.644	18.111	18.589	-5.19
-1.0	16.766	17.199	17.641	-5.16
0.0	15.937	16.338	16.747	-5.13
1.0	15.152	15.524	15.903	-5.09
2.0	14.412	14.755	15.106	-5.06
3.0	13.711	14.030	14.354	-5.03
4.0	13.050	13.344	13.644	-5.00
5.0	12.424	12.696	12.973	-4.96
6.0	11.832	12.084	12.340	-4.93
7.0	11.271	11.504	11.741	-4.90
8.0	10.741	10.956	11.175	-4.87
9.0	10.238	10.437	10.639	-4.84
10.0	9.763	9.946	10.133	-4.81
11.0	9.312	9.481	9.653	-4.78
12.0	8.884	9.041	9.199	-4.74
13.0	8.479	8.623	8.769	-4.71
14.0	8.095	8.227	8.362	-4.69
15.0	7.730	7.852	7.975	-4.66
16.0	7.384	7.496	7.609	-4.63
17.0	7.055	7.158	7.262	-4.60
18.0	6.743	6.838	6.933	-4.57
19.0	6.446	6.533	6.621	-4.54
20.0	6.165	6.244	6.324	-4.51
21.0	5.897	5.969	6.043	-4.49
22.0	5.642	5.708	5.775	-4.46
23.0	5.400	5.460	5.521	-4.43
24.0	5.169	5.224	5.280	-4.41
25.0	4.950	5.000	5.050	-4.38
26.0	4.736	4.787	4.837	-4.35

Resistance vs. Temperature Table

R25=5KΩ±1% B25/85=3950K±1%

TEMP. (°C)	MINIMUM (KΩ)	NOMINAL (KΩ)	MAXIMUM (KΩ)	ALPHA(%/°C)
27.0	4.533	4.583	4.634	-4.33
28.0	4.339	4.390	4.441	-4.30
29.0	4.155	4.206	4.257	-4.27
30.0	3.979	4.030	4.082	-4.25
31.0	3.812	3.863	3.914	-4.22
32.0	3.653	3.704	3.755	-4.20
33.0	3.502	3.552	3.603	-4.18
34.0	3.357	3.407	3.458	-4.15
35.0	3.219	3.269	3.319	-4.13
36.0	3.088	3.137	3.187	-4.10
37.0	2.963	3.012	3.061	-4.08
38.0	2.843	2.892	2.941	-4.06
39.0	2.729	2.777	2.826	-4.03
40.0	2.620	2.668	2.716	-4.01
41.0	2.516	2.563	2.611	-3.99
42.0	2.417	2.463	2.510	-3.96
43.0	2.322	2.368	2.414	-3.94
44.0	2.232	2.277	2.322	-3.92
45.0	2.145	2.189	2.234	-3.90
46.0	2.063	2.106	2.150	-3.88
47.0	1.983	2.026	2.070	-3.85
48.0	1.908	1.950	1.993	-3.83
49.0	1.835	1.877	1.919	-3.81
50.0	1.766	1.807	1.848	-3.81
51.0	1.699	1.739	1.780	-3.79
52.0	1.636	1.675	1.715	-3.77
53.0	1.575	1.613	1.653	-3.74
54.0	1.516	1.554	1.593	-3.72
55.0	1.460	1.498	1.536	-3.70
56.0	1.407	1.443	1.481	-3.67
57.0	1.356	1.392	1.428	-3.65
58.0	1.307	1.342	1.378	-3.63
59.0	1.260	1.294	1.329	-3.61
60.0	1.215	1.248	1.283	-3.58
61.0	1.172	1.205	1.239	-3.56

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TEMP. (°C)	MINIMUM (KΩ)	NOMINAL (KΩ)	MAXIMUM (KΩ)	ALPHA(%/°C)
62.0	1.130	1.163	1.196	-3.54
63.0	1.091	1.122	1.155	-3.52
64.0	1.052	1.084	1.116	-3.50
65.0	1.016	1.046	1.078	-3.48
66.0	0.981	1.011	1.042	-3.45
67.0	0.947	0.977	1.007	-3.43
68.0	0.915	0.944	0.973	-3.41
69.0	0.884	0.912	0.941	-3.39
70.0	0.854	0.882	0.910	-3.37
71.0	0.826	0.853	0.880	-3.35
72.0	0.798	0.825	0.852	-3.33
73.0	0.772	0.798	0.824	-3.31
74.0	0.746	0.772	0.798	-3.29
75.0	0.722	0.747	0.772	-3.27
76.0	0.699	0.723	0.748	-3.26
77.0	0.676	0.700	0.724	-3.24
78.0	0.654	0.678	0.702	-3.22
79.0	0.633	0.656	0.680	-3.20
80.0	0.613	0.636	0.659	-3.18
81.0	0.594	0.616	0.638	-3.16
82.0	0.575	0.597	0.619	-3.14
83.0	0.557	0.578	0.600	-3.13
84.0	0.540	0.560	0.582	-3.11
85.0	0.523	0.543	0.564	-3.09
86.0	0.507	0.527	0.547	-3.07
87.0	0.492	0.511	0.531	-3.05
88.0	0.477	0.496	0.515	-3.04
89.0	0.462	0.481	0.500	-3.02
90.0	0.448	0.467	0.485	-3.00
91.0	0.435	0.453	0.471	-2.99
92.0	0.422	0.440	0.458	-2.97
93.0	0.410	0.427	0.444	-2.95
94.0	0.398	0.414	0.432	-2.94
95.0	0.386	0.402	0.419	-2.92
96.0	0.375	0.391	0.407	-2.90

Resistance vs. Temperature Table

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TEMP. (°C)	MINIMUM (KΩ)	NOMINAL (KΩ)	MAXIMUM (KΩ)	ALPHA(%/°C)
97.0	0.364	0.380	0.396	-2.89
98.0	0.353	0.369	0.385	-2.87
99.0	0.343	0.358	0.374	-2.86
100.0	0.334	0.348	0.364	-2.89
101.0	0.324	0.338	0.354	-2.88
102.0	0.315	0.329	0.344	-2.86
103.0	0.306	0.320	0.334	-2.85
104.0	0.297	0.311	0.325	-2.83
105.0	0.289	0.302	0.316	-2.81
106.0	0.281	0.294	0.307	-2.80
107.0	0.273	0.286	0.299	-2.78
108.0	0.265	0.278	0.291	-2.77
109.0	0.258	0.270	0.283	-2.75
110.0	0.251	0.263	0.276	-2.74
111.0	0.244	0.256	0.268	-2.72
112.0	0.237	0.249	0.261	-2.71
113.0	0.231	0.242	0.254	-2.69
114.0	0.225	0.236	0.248	-2.68
115.0	0.219	0.230	0.241	-2.66
116.0	0.213	0.224	0.235	-2.65
117.0	0.207	0.218	0.229	-2.63
118.0	0.202	0.212	0.223	-2.62
119.0	0.197	0.207	0.217	-2.60
120.0	0.192	0.201	0.212	-2.59
121.0	0.187	0.196	0.206	-2.58
122.0	0.182	0.191	0.201	-2.56
123.0	0.177	0.186	0.196	-2.55
124.0	0.173	0.182	0.191	-2.54
125.0	0.168	0.177	0.187	-2.52
126.0	0.164	0.173	0.182	-2.51
127.0	0.160	0.169	0.178	-2.49
128.0	0.156	0.164	0.173	-2.48
129.0	0.152	0.160	0.169	-2.47
130.0	0.148	0.157	0.165	-2.46
131.0	0.145	0.153	0.161	-2.44

Resistance vs. Temperature Table

R25=5KΩ±1% B25/85=3950K±1%

TEMP. (°C)	MINIMUM (KΩ)	NOMINAL (KΩ)	MAXIMUM (KΩ)	ALPHA(%/°C)
132.0	0.141	0.149	0.157	-2.43
133.0	0.138	0.146	0.154	-2.42
134.0	0.134	0.142	0.150	-2.40
135.0	0.131	0.139	0.146	-2.39
136.0	0.128	0.135	0.143	-2.38
137.0	0.125	0.132	0.140	-2.37
138.0	0.122	0.129	0.137	-2.35
139.0	0.119	0.126	0.133	-2.34
140.0	0.116	0.123	0.130	-2.33
141.0	0.114	0.120	0.127	-2.32
142.0	0.111	0.118	0.125	-2.31
143.0	0.109	0.115	0.122	-2.29
144.0	0.106	0.112	0.119	-2.28
145.0	0.104	0.110	0.116	-2.27
146.0	0.101	0.107	0.114	-2.26
147.0	0.099	0.105	0.111	-2.25
148.0	0.097	0.103	0.109	-2.24
149.0	0.095	0.100	0.106	-2.23
150.0	0.093	0.098	0.104	-2.22
151.0	0.090	0.096	0.102	-2.21
152.0	0.088	0.094	0.100	-2.20
153.0	0.087	0.092	0.098	-2.19
154.0	0.085	0.090	0.095	-2.18
155.0	0.083	0.088	0.093	-2.17
156.0	0.081	0.086	0.091	-2.16
157.0	0.079	0.084	0.090	-2.15
158.0	0.078	0.082	0.088	-2.14
159.0	0.076	0.081	0.086	-2.13
160.0	0.074	0.079	0.084	-2.12
161.0	0.073	0.077	0.082	-2.11
162.0	0.071	0.076	0.081	-2.10
163.0	0.070	0.074	0.079	-2.09
164.0	0.068	0.073	0.077	-2.08
165.0	0.067	0.071	0.076	-2.07
166.0	0.065	0.070	0.074	-2.07

Resistance vs. Temperature Table

R25=5KΩ±1% B25/85=3950K±1%

TEMP. (°C)	MINIMUM (KΩ)	NOMINAL (KΩ)	MAXIMUM (KΩ)	ALPHA(%/°C)
167.0	0.064	0.068	0.073	-2.06
168.0	0.063	0.067	0.071	-2.05
169.0	0.061	0.066	0.070	-2.04
170.0	0.060	0.064	0.068	-2.03
171.0	0.059	0.063	0.067	-2.02
172.0	0.058	0.062	0.066	-2.01
173.0	0.057	0.060	0.065	-2.00
174.0	0.055	0.059	0.063	-1.99
175.0	0.054	0.058	0.062	-1.98
176.0	0.414	0.443	0.475	-2.20
176.0	0.053	0.057	0.061	-1.97
177.0	0.052	0.056	0.060	-1.97
178.0	0.051	0.055	0.059	-1.96
179.0	0.050	0.054	0.057	-1.95
180.0	0.049	0.053	0.056	-1.94
181.0	0.048	0.052	0.055	-1.93
182.0	0.047	0.051	0.054	-1.92
183.0	0.046	0.050	0.053	-1.91
184.0	0.046	0.049	0.052	-1.91
185.0	0.045	0.048	0.051	-1.90
186.0	0.044	0.047	0.050	-1.89
187.0	0.043	0.046	0.049	-1.88
188.0	0.042	0.045	0.048	-1.87
189.0	0.041	0.044	0.048	-1.87
190.0	0.041	0.044	0.047	-1.86
191.0	0.040	0.043	0.046	-1.85
192.0	0.039	0.042	0.045	-1.84
193.0	0.038	0.041	0.044	-1.83
194.0	0.038	0.040	0.043	-1.83
195.0	0.037	0.040	0.043	-1.82
196.0	0.036	0.039	0.042	-1.81
197.0	0.036	0.038	0.041	-1.80
198.0	0.035	0.038	0.040	-1.79
199.0	0.034	0.037	0.040	-1.79
200.0	0.034	0.036	0.039	-1.78

Resistance vs. Temperature Table

R25=5KΩ±1% B25/85=3950K±1%

TEMP. (°C)	MINIMUM (KΩ)	NOMINAL (KΩ)	MAXIMUM (KΩ)	ALPHA(%/°C)
201.0	0.033	0.036	0.038	-1.77
202.0	0.033	0.035	0.038	-1.76
203.0	0.032	0.034	0.037	-1.76
204.0	0.031	0.034	0.036	-1.75
205.0	0.031	0.033	0.036	-1.74
206.0	0.030	0.033	0.035	-1.74
207.0	0.030	0.032	0.035	-1.73
208.0	0.029	0.032	0.034	-1.72
209.0	0.029	0.031	0.033	-1.71
210.0	0.028	0.031	0.033	-1.71
211.0	0.028	0.030	0.032	-1.70
212.0	0.027	0.029	0.032	-1.69
213.0	0.027	0.029	0.031	-1.69
214.0	0.026	0.029	0.031	-1.68
215.0	0.026	0.028	0.030	-1.67
216.0	0.026	0.028	0.030	-1.67
217.0	0.025	0.027	0.029	-1.66
218.0	0.025	0.027	0.029	-1.65
219.0	0.024	0.026	0.028	-1.65
220.0	0.024	0.026	0.028	-1.64
221.0	0.024	0.025	0.027	-1.63
222.0	0.023	0.025	0.027	-1.63
223.0	0.023	0.025	0.027	-1.62
224.0	0.022	0.024	0.026	-1.61
225.0	0.022	0.024	0.026	-1.61
226.0	0.022	0.023	0.025	-1.60
227.0	0.021	0.023	0.025	-1.59
228.0	0.021	0.023	0.025	-1.59
229.0	0.021	0.022	0.024	-1.58
230.0	0.020	0.022	0.024	-1.57
231.0	0.020	0.022	0.023	-1.57
232.0	0.020	0.021	0.023	-1.56
233.0	0.019	0.021	0.023	-1.56
234.0	0.019	0.021	0.022	-1.55
235.0	0.019	0.020	0.022	-1.54

Resistance vs. Temperature Table

R25=5KΩ±1% B25/85=3950K±1%

TEMP. (°C)	MINIMUM (KΩ)	NOMINAL (KΩ)	MAXIMUM (KΩ)	ALPHA(%/°C)
236.0	0.018	0.020	0.022	-1.54
237.0	0.018	0.020	0.021	-1.53
238.0	0.018	0.019	0.021	-1.53
239.0	0.018	0.019	0.021	-1.52
240.0	0.017	0.019	0.020	-1.51
241.0	0.017	0.019	0.020	-1.51
242.0	0.017	0.018	0.020	-1.50
243.0	0.017	0.018	0.020	-1.50
244.0	0.016	0.018	0.019	-1.49
245.0	0.016	0.017	0.019	-1.48
246.0	0.016	0.017	0.019	-1.48
247.0	0.016	0.017	0.018	-1.47
248.0	0.015	0.017	0.018	-1.47
249.0	0.015	0.016	0.018	-1.46
250.0	0.015	0.016	0.018	-1.46
251.0	0.015	0.016	0.017	-1.45
252.0	0.015	0.016	0.017	-1.45
253.0	0.014	0.016	0.017	-1.44
254.0	0.014	0.015	0.017	-1.43
255.0	0.014	0.015	0.016	-1.43
256.0	0.014	0.015	0.016	-1.42
257.0	0.014	0.015	0.016	-1.42
258.0	0.013	0.014	0.016	-1.41
259.0	0.013	0.014	0.016	-1.41
260.0	0.013	0.014	0.015	-1.40
261.0	0.013	0.014	0.015	-1.40
262.0	0.013	0.014	0.015	-1.39
263.0	0.012	0.013	0.015	-1.39
264.0	0.012	0.013	0.014	-1.38
265.0	0.012	0.013	0.014	-1.38
266.0	0.012	0.013	0.014	-1.37
267.0	0.012	0.013	0.014	-1.37
268.0	0.012	0.013	0.014	-1.36
269.0	0.011	0.012	0.014	-1.36
270.0	0.011	0.012	0.013	-1.35

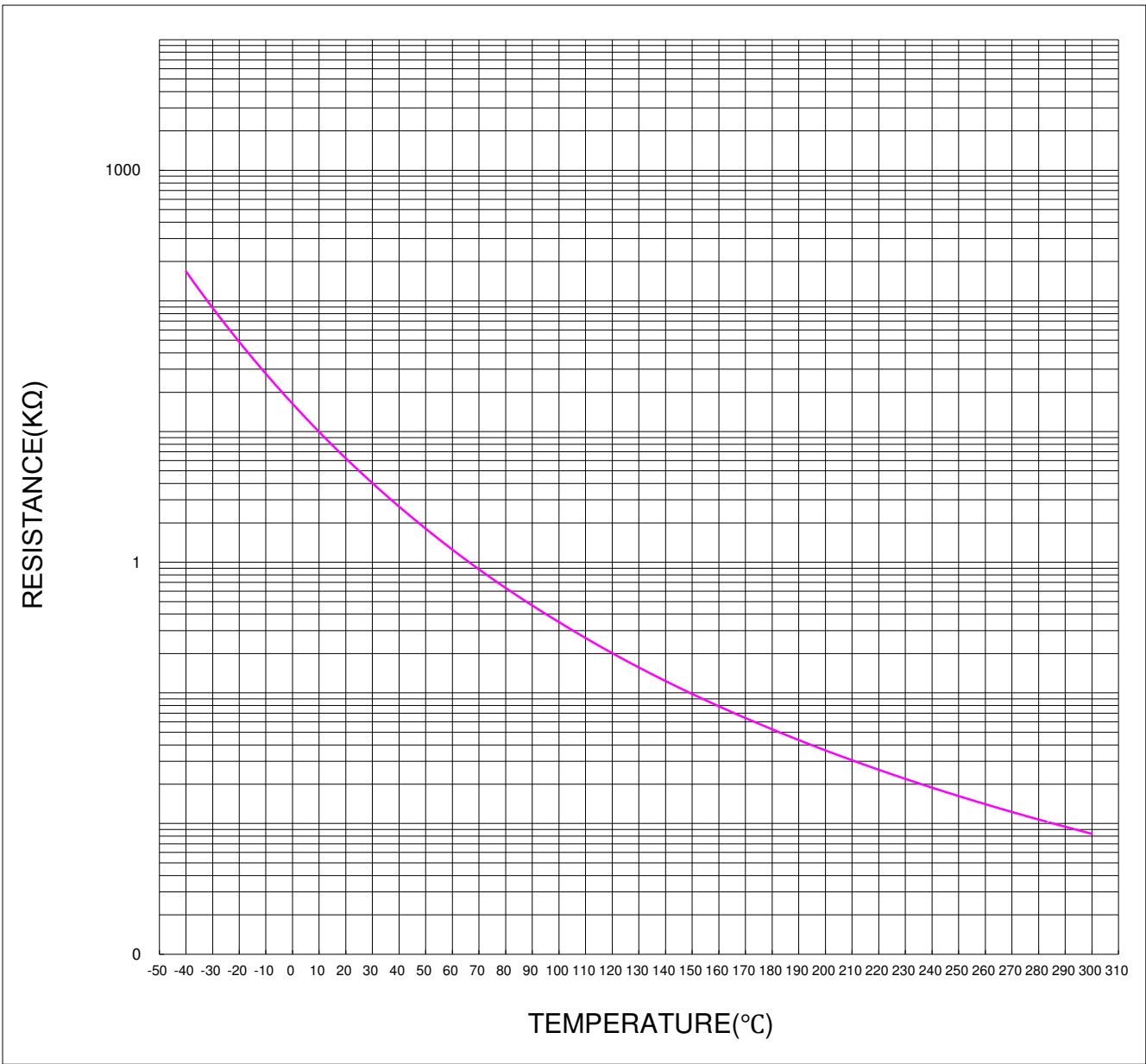
Resistance vs. Temperature Table

R25=5KΩ±1% B25/85=3950K±1%

TEMP. (°C)	MINIMUM (KΩ)	NOMINAL (KΩ)	MAXIMUM (KΩ)	ALPHA(%/°C)
271.0	0.011	0.012	0.013	-1.35
272.0	0.011	0.012	0.013	-1.34
273.0	0.011	0.012	0.013	-1.34
274.0	0.011	0.012	0.013	-1.33
275.0	0.011	0.011	0.012	-1.33
276.0	0.010	0.011	0.012	-1.32
277.0	0.010	0.011	0.012	-1.32
278.0	0.010	0.011	0.012	-1.31
279.0	0.010	0.011	0.012	-1.31
280.0	0.010	0.011	0.012	-1.30
281.0	0.010	0.011	0.012	-1.30
282.0	0.010	0.010	0.011	-1.29
283.0	0.009	0.010	0.011	-1.29
284.0	0.009	0.010	0.011	-1.28
285.0	0.009	0.010	0.011	-1.28
286.0	0.009	0.010	0.011	-1.27
287.0	0.009	0.010	0.011	-1.27
288.0	0.009	0.010	0.011	-1.27
289.0	0.009	0.010	0.010	-1.26
290.0	0.009	0.009	0.010	-1.26
291.0	0.009	0.009	0.010	-1.25
292.0	0.008	0.009	0.010	-1.25
293.0	0.008	0.009	0.010	-1.24
294.0	0.008	0.009	0.010	-1.24
295.0	0.008	0.009	0.010	-1.23
296.0	0.008	0.009	0.010	-1.23
297.0	0.008	0.009	0.009	-1.23
298.0	0.008	0.009	0.009	-1.22
299.0	0.008	0.008	0.009	-1.22
300.0	0.008	0.008	0.009	-1.21

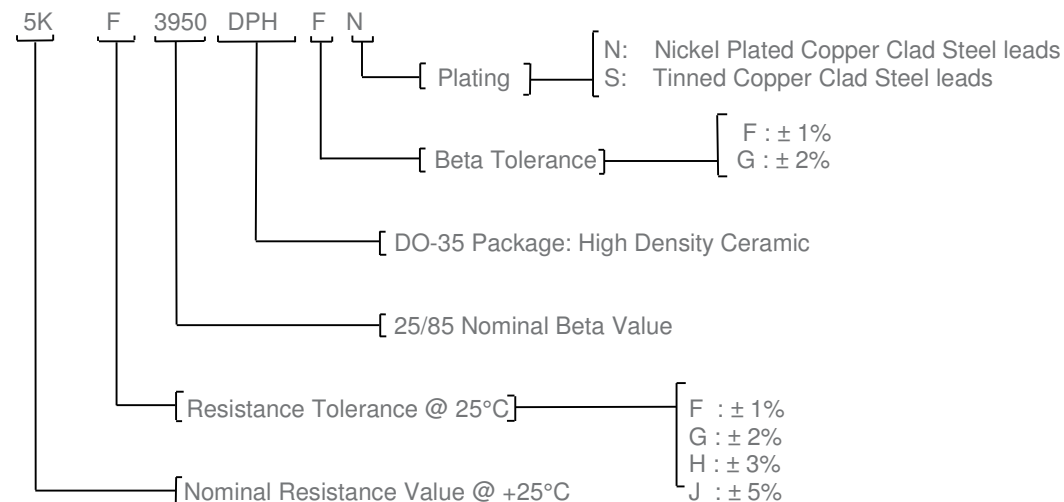
Resistance vs. Temperature Graph

R₂₅=5KΩ±1% B_{25/85}=3950K±1%



Ordering Information

PART NUMBER	DESCRIPTION	NOM. Ω @25°C	RES. TOLERANCE	PACKAGING
5KF3950DPHFN	DO-35 Series Thermistor (+300°C)" for Nickel version	5,000	± 1%	Bulk
5KF3950DPHFS	DO-35 Series Thermistor (+200°C)" for Tinned version	5,000	± 1%	Bulk



Other Resistance values available in this series

MEAS PART NUMBER	RESISTANCE [Ω] @ +25°C	TOLERANCE @ +25°C	BETA VALUE 25/85	BETA TOLERANCE	OPERATING TEMPERATURE
10KF3450DPHFN	10000	± 1%	3450	± 1%	-40° to +300°C
10KF3450DPHFS	10000	± 1%	3450	± 1%	-40° to +200°C
10KF3977DPHFN	10000	± 1%	3977	± 1%	-40° to +300°C
10KF3977DPHFS	10000	± 1%	3977	± 1%	-40° to +200°C
50KF4050DPHFN	50000	± 1%	4050	± 1%	-40° to +300°C
50KF4050DPHFS	50000	± 1%	4050	± 1%	-40° to +200°C

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