MEAS HD DO-35 SERIES THERMISTOR 50K BETA $_{25/85}$ 4050

- 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 +300ºC
- RoHS Compliant
- Copper clad steel (CCS Wire)

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.

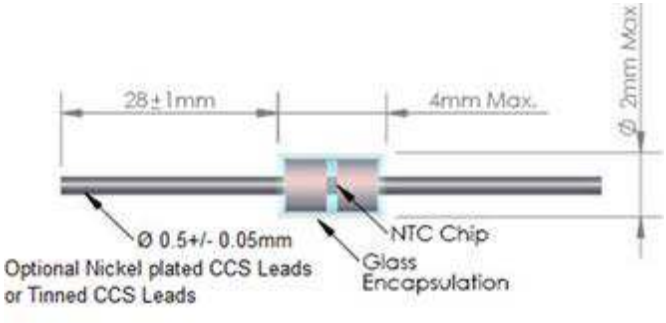
Features

- 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) -40ºC to +300 ºC
- Temp range (Tinned) -40 ºC to +200 ºC

Applications

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

Dimensions



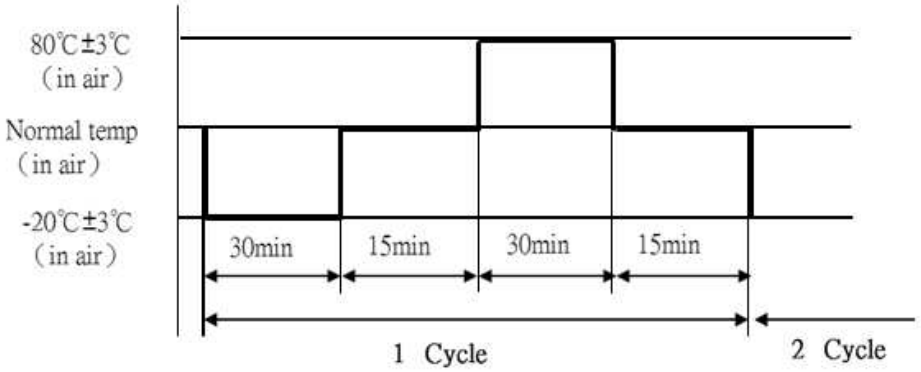
Electrical Specifications

PARAMETERS	UNITS	VALUE
Resistance @ +25°C	Ohms	50,000
Resistance tolerance @ +25°C	%	± 1
Beta Value 25/85	K	4050
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)	50K±1%	At zero power, 25℃
D. Beta Value	B25/85=4050K±1%	B= lnR25–lnR85 / 1/298.15–1/358.15 R25=Resistance at 25.0±0.1℃ R85=Resistance at 85.0±0.1℃
E. Thermal time constant (τ)	Approx.2 sec	Measured in stirred water
F. Thermal Dissipation Constant (δ)	Approx.1.9m W/℃	Measured in still air, normal temp

Reliability

TEST ITEM	TEST METHODS	CRITERIA
A. Low temperature storage	After placing a thermistor in -40℃±3℃ for 1000 hours, keep it in normal temperature and humidity for one hour.	ΔR/R≦2% ΔB/B≦1%
B. High temperature storage	Tinned Version: After placing a thermistor in 200℃±3℃ for 1000 hours, keep it in normal temperature and humidity for one hour.	ΔR/R≦2% ΔB/B≦1%
	Nickel Plated Version: After placing a thermistor in 300℃±3℃ for 1000 hours, keep it in normal temperature and humidity for one hour.	ΔR/R≦3% ΔB/B≦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.	ΔR/R≦2% ΔB/B≦1%
		
D. Humidity test	After placing a thermistor in 40℃±2℃, 90~95%RH, for 1000 hours, keep it in normal temperature and humidity for one hour.	ΔR/R≦2% ΔB/B≦1%

Resistance vs. Temperature Table

R25=50KΩ±1% B25/85=4050K±1%

TEMP. (℃)	MINIMUM (KΩ)	NOMINAL (KΩ)	MAXIMUM (KΩ)	ALPHA(%/℃)
-40.0	1597.586	1686.276	1779.711	-6.67
-39.0	1496.143	1577.890	1663.938	-6.62
-38.0	1401.806	1477.180	1556.451	-6.58
-37.0	1314.031	1383.553	1456.608	-6.53
-36.0	1232.323	1296.468	1363.815	-6.48
-35.0	1156.224	1215.426	1277.533	-6.44
-34.0	1085.314	1139.972	1197.263	-6.39
-33.0	1019.208	1069.685	1122.551	-6.35
-32.0	957.550	1004.181	1052.977	-6.30
-31.0	900.015	943.104	988.157	-6.26
-30.0	846.302	886.129	927.737	-6.21
-29.0	796.133	832.955	871.392	-6.17
-28.0	749.254	783.305	818.822	-6.13
-27.0	705.429	736.926	769.752	-6.09
-26.0	664.441	693.582	723.929	-6.04
-25.0	626.089	653.056	681.117	-6.00
-24.0	590.188	615.149	641.101	-5.96
-23.0	556.567	579.675	603.683	-5.92
-22.0	525.068	546.465	568.678	-5.88
-21.0	495.544	515.361	535.916	-5.84
-20.0	467.860	486.216	505.241	-5.81
-19.0	441.891	458.896	476.507	-5.77
-18.0	417.520	433.276	449.581	-5.73
-17.0	394.640	409.241	424.339	-5.69
-16.0	373.151	386.683	400.664	-5.65
-15.0	352.961	365.503	378.452	-5.62
-14.0	333.983	345.609	357.603	-5.58
-13.0	316.139	326.916	338.026	-5.55
-12.0	299.353	309.344	319.637	-5.51
-11.0	283.557	292.820	302.355	-5.48
-10.0	268.688	277.276	286.110	-5.44
-9.0	254.685	262.647	270.832	-5.41

Resistance vs. Temperature Table

R25=50KΩ±1% B25/85=4050K±1%

TEMP. (℃)	MINIMUM (KΩ)	NOMINAL (KΩ)	MAXIMUM (KΩ)	ALPHA(%/℃)
-8.0	241.493	248.875	256.458	-5.37
-7.0	229.061	235.906	242.930	-5.34
-6.0	217.341	223.687	230.194	-5.31
-5.0	206.288	212.171	218.199	-5.27
-4.0	195.861	201.314	206.898	-5.24
-3.0	186.020	191.074	196.246	-5.21
-2.0	176.729	181.413	186.203	-5.18
-1.0	167.956	172.296	176.731	-5.14
0.0	159.667	163.688	167.794	-5.12
1.0	151.822	155.547	159.347	-5.09
2.0	144.409	147.858	151.374	-5.06
3.0	137.401	140.594	143.847	-5.02
4.0	130.774	133.729	136.738	-4.99
5.0	124.504	127.239	130.021	-4.96
6.0	118.572	121.101	123.672	-4.93
7.0	112.956	115.295	117.670	-4.90
8.0	107.638	109.800	111.994	-4.87
9.0	102.601	104.598	106.624	-4.84
10.0	97.829	99.673	101.541	-4.81
11.0	93.305	95.007	96.730	-4.78
12.0	89.016	90.586	92.174	-4.75
13.0	84.949	86.396	87.858	-4.72
14.0	81.090	82.422	83.768	-4.70
15.0	77.428	78.654	79.892	-4.67
16.0	73.952	75.079	76.216	-4.64
17.0	70.651	71.687	72.730	-4.61
18.0	67.516	68.466	69.423	-4.59
19.0	64.537	65.408	66.284	-4.56
20.0	61.706	62.503	63.304	-4.53
21.0	59.014	59.743	60.475	-4.50
22.0	56.455	57.120	57.788	-4.48
23.0	54.021	54.627	55.234	-4.45
24.0	51.704	52.255	52.807	-4.43
25.0	49.500	50.000	50.500	-4.40
26.0	47.349	47.854	48.359	-4.38

Resistance vs. Temperature Table

R25=50KΩ±1% B25/85=4050K±1%

TEMP. (℃)	MINIMUM (KΩ)	NOMINAL (KΩ)	MAXIMUM (KΩ)	ALPHA(%/℃)
27.0	45.304	45.812	46.320	-4.35
28.0	43.358	43.867	44.379	-4.33
29.0	41.505	42.016	42.528	-4.30
30.0	39.742	40.252	40.765	-4.28
31.0	38.063	38.572	39.085	-4.25
32.0	36.464	36.971	37.482	-4.23
33.0	34.940	35.445	35.954	-4.21
34.0	33.488	33.990	34.496	-4.18
35.0	32.104	32.602	33.104	-4.16
36.0	30.784	31.278	31.776	-4.14
37.0	29.525	30.014	30.509	-4.11
38.0	28.325	28.809	29.298	-4.09
39.0	27.179	27.657	28.142	-4.07
40.0	26.086	26.558	27.037	-4.05
41.0	25.042	25.508	25.981	-4.02
42.0	24.045	24.505	24.972	-4.00
43.0	23.093	23.547	24.007	-3.98
44.0	22.183	22.631	23.084	-3.96
45.0	21.314	21.755	22.202	-3.94
46.0	20.484	20.917	21.358	-3.92
47.0	19.689	20.116	20.550	-3.90
48.0	18.930	19.350	19.776	-3.88
49.0	18.204	18.616	19.036	-3.86
50.0	17.509	17.914	18.327	-3.91
51.0	16.831	17.229	17.635	-3.89
52.0	16.184	16.574	16.973	-3.87
53.0	15.564	15.947	16.339	-3.85
54.0	14.971	15.347	15.731	-3.83
55.0	14.404	14.773	15.150	-3.81
56.0	13.861	14.223	14.593	-3.78
57.0	13.342	13.696	14.059	-3.76
58.0	12.844	13.192	13.548	-3.74
59.0	12.368	12.709	13.057	-3.72
60.0	11.911	12.245	12.587	-3.71
61.0	11.474	11.801	12.136	-3.69

Resistance vs. Temperature Table

R25=50KΩ±1% B25/85=4050K±1%

TEMP. (℃)	MINIMUM (KΩ)	NOMINAL (KΩ)	MAXIMUM (KΩ)	ALPHA(%/℃)
62.0	11.055	11.375	11.704	-3.67
63.0	10.653	10.967	11.289	-3.65
64.0	10.268	10.575	10.891	-3.63
65.0	9.899	10.200	10.509	-3.61
66.0	9.545	9.839	10.142	-3.59
67.0	9.205	9.493	9.789	-3.57
68.0	8.879	9.161	9.451	-3.55
69.0	8.566	8.842	9.126	-3.54
70.0	8.266	8.536	8.814	-3.52
71.0	7.978	8.242	8.514	-3.50
72.0	7.701	7.959	8.226	-3.48
73.0	7.435	7.688	7.948	-3.46
74.0	7.179	7.427	7.682	-3.45
75.0	6.934	7.176	7.426	-3.43
76.0	6.698	6.935	7.179	-3.41
77.0	6.471	6.703	6.942	-3.39
78.0	6.253	6.480	6.714	-3.38
79.0	6.043	6.265	6.494	-3.36
80.0	5.842	6.059	6.283	-3.34
81.0	5.648	5.860	6.079	-3.33
82.0	5.461	5.669	5.883	-3.31
83.0	5.282	5.484	5.694	-3.29
84.0	5.109	5.307	5.513	-3.28
85.0	4.943	5.136	5.338	-3.26
86.0	4.782	4.972	5.169	-3.25
87.0	4.628	4.814	5.006	-3.23
88.0	4.480	4.661	4.849	-3.22
89.0	4.336	4.514	4.698	-3.20
90.0	4.199	4.372	4.552	-3.18
91.0	4.066	4.235	4.412	-3.17
92.0	3.938	4.104	4.276	-3.15
93.0	3.814	3.977	4.145	-3.14
94.0	3.695	3.854	4.019	-3.12
95.0	3.580	3.736	3.897	-3.11
96.0	3.470	3.622	3.780	-3.09

Resistance vs. Temperature Table

R25=50KΩ±1% B25/85=4050K±1%

TEMP. (℃)	MINIMUM (KΩ)	NOMINAL (KΩ)	MAXIMUM (KΩ)	ALPHA(%/℃)
97.0	3.363	3.512	3.666	-3.08
98.0	3.260	3.405	3.557	-3.07
99.0	3.161	3.303	3.451	-3.05
100.0	3.065	3.204	3.349	-3.10
101.0	2.970	3.106	3.248	-3.09
102.0	2.879	3.012	3.151	-3.07
103.0	2.791	2.921	3.057	-3.06
104.0	2.706	2.834	2.966	-3.04
105.0	2.625	2.749	2.879	-3.02
106.0	2.546	2.667	2.794	-3.01
107.0	2.469	2.588	2.713	-2.99
108.0	2.396	2.512	2.634	-2.98
109.0	2.325	2.439	2.558	-2.96
110.0	2.256	2.368	2.484	-2.95
111.0	2.190	2.299	2.413	-2.93
112.0	2.126	2.233	2.344	-2.92
113.0	2.064	2.169	2.278	-2.91
114.0	2.005	2.107	2.214	-2.89
115.0	1.947	2.047	2.152	-2.88
116.0	1.891	1.989	2.091	-2.86
117.0	1.837	1.933	2.033	-2.85
118.0	1.785	1.879	1.977	-2.83
119.0	1.735	1.826	1.923	-2.82
120.0	1.686	1.776	1.870	-2.81
121.0	1.639	1.727	1.819	-2.79
122.0	1.593	1.679	1.770	-2.78
123.0	1.549	1.633	1.722	-2.77
124.0	1.507	1.589	1.675	-2.75
125.0	1.465	1.546	1.631	-2.74
126.0	1.425	1.504	1.587	-2.73
127.0	1.387	1.464	1.545	-2.71
128.0	1.349	1.425	1.504	-2.70
129.0	1.313	1.387	1.465	-2.69
130.0	1.278	1.350	1.427	-2.68
131.0	1.244	1.315	1.390	-2.66

Resistance vs. Temperature Table

R25=50KΩ±1% B25/85=4050K±1%

TEMP. (℃)	MINIMUM (KΩ)	NOMINAL (KΩ)	MAXIMUM (KΩ)	ALPHA(%/℃)
132.0	1.211	1.280	1.354	-2.65
133.0	1.179	1.247	1.319	-2.64
134.0	1.148	1.214	1.285	-2.63
135.0	1.118	1.183	1.252	-2.61
136.0	1.088	1.153	1.220	-2.60
137.0	1.060	1.123	1.189	-2.59
138.0	1.033	1.094	1.159	-2.58
139.0	1.006	1.067	1.130	-2.56
140.0	0.981	1.040	1.102	-2.55
141.0	0.956	1.014	1.075	-2.54
142.0	0.931	0.988	1.048	-2.53
143.0	0.908	0.964	1.022	-2.52
144.0	0.885	0.940	0.997	-2.51
145.0	0.863	0.916	0.973	-2.50
146.0	0.842	0.894	0.949	-2.48
147.0	0.821	0.872	0.926	-2.47
148.0	0.800	0.851	0.904	-2.46
149.0	0.781	0.830	0.882	-2.45
150.0	0.762	0.810	0.861	-2.45
151.0	0.743	0.791	0.841	-2.44
152.0	0.725	0.772	0.821	-2.43
153.0	0.707	0.753	0.802	-2.42
154.0	0.690	0.735	0.783	-2.41
155.0	0.674	0.718	0.764	-2.40
156.0	0.658	0.701	0.746	-2.39
157.0	0.642	0.684	0.729	-2.38
158.0	0.627	0.668	0.712	-2.37
159.0	0.612	0.653	0.696	-2.36
160.0	0.598	0.637	0.680	-2.35
161.0	0.584	0.623	0.664	-2.34
162.0	0.570	0.608	0.649	-2.33
163.0	0.557	0.594	0.634	-2.32
164.0	0.544	0.581	0.620	-2.31
165.0	0.531	0.567	0.606	-2.30
166.0	0.519	0.555	0.593	-2.29

Resistance vs. Temperature Table

R25=50KΩ±1% B25/85=4050K±1%

TEMP. (℃)	MINIMUM (KΩ)	NOMINAL (KΩ)	MAXIMUM (KΩ)	ALPHA(%/℃)
167.0	0.507	0.542	0.579	-2.28
168.0	0.496	0.530	0.567	-2.27
169.0	0.484	0.518	0.554	-2.26
170.0	0.473	0.506	0.542	-2.25
171.0	0.463	0.495	0.530	-2.24
172.0	0.452	0.484	0.518	-2.23
173.0	0.442	0.474	0.507	-2.22
174.0	0.433	0.463	0.496	-2.22
175.0	0.423	0.453	0.485	-2.21
176.0	0.414	0.443	0.475	-2.20
177.0	0.405	0.434	0.465	-2.19
178.0	0.396	0.424	0.455	-2.18
179.0	0.387	0.415	0.445	-2.17
180.0	0.379	0.406	0.436	-2.16
181.0	0.370	0.398	0.427	-2.15
182.0	0.363	0.389	0.418	-2.14
183.0	0.355	0.381	0.409	-2.14
184.0	0.347	0.373	0.400	-2.13
185.0	0.340	0.365	0.392	-2.12
186.0	0.333	0.357	0.384	-2.11
187.0	0.326	0.350	0.376	-2.10
188.0	0.319	0.343	0.368	-2.09
189.0	0.312	0.336	0.361	-2.09
190.0	0.306	0.329	0.353	-2.08
191.0	0.299	0.322	0.346	-2.07
192.0	0.293	0.315	0.339	-2.06
193.0	0.287	0.309	0.332	-2.05
194.0	0.281	0.303	0.326	-2.05
195.0	0.275	0.297	0.319	-2.04
196.0	0.270	0.291	0.313	-2.03
197.0	0.264	0.285	0.307	-2.02
198.0	0.259	0.279	0.301	-2.01
199.0	0.254	0.273	0.295	-2.01
200.0	0.249	0.268	0.289	-2.00
201.0	0.244	0.263	0.283	-1.99

Resistance vs. Temperature Table

R25=50KΩ±1% B25/85=4050K±1%

TEMP. (℃)	MINIMUM (KΩ)	NOMINAL (KΩ)	MAXIMUM (KΩ)	ALPHA(%/℃)
202.0	0.239	0.258	0.278	-1.98
203.0	0.234	0.253	0.273	-1.98
204.0	0.229	0.248	0.267	-1.97
205.0	0.225	0.243	0.262	-1.96
206.0	0.220	0.238	0.257	-1.95
207.0	0.216	0.234	0.252	-1.94
208.0	0.212	0.229	0.247	-1.94
209.0	0.208	0.225	0.243	-1.93
210.0	0.204	0.220	0.238	-1.92
211.0	0.200	0.216	0.234	-1.91
212.0	0.196	0.212	0.229	-1.91
213.0	0.192	0.208	0.225	-1.90
214.0	0.189	0.204	0.221	-1.89
215.0	0.185	0.200	0.217	-1.89
216.0	0.182	0.197	0.213	-1.88
217.0	0.178	0.193	0.209	-1.87
218.0	0.175	0.189	0.205	-1.86
219.0	0.172	0.186	0.201	-1.86
220.0	0.168	0.182	0.198	-1.85
221.0	0.165	0.179	0.194	-1.84
222.0	0.162	0.176	0.191	-1.84
223.0	0.159	0.173	0.187	-1.83
224.0	0.156	0.170	0.184	-1.82
225.0	0.153	0.167	0.181	-1.82
226.0	0.151	0.164	0.177	-1.81
227.0	0.148	0.161	0.174	-1.80
228.0	0.145	0.158	0.171	-1.80
229.0	0.143	0.155	0.168	-1.79
230.0	0.140	0.152	0.165	-1.78
231.0	0.138	0.150	0.162	-1.78
232.0	0.135	0.147	0.160	-1.77
233.0	0.133	0.144	0.157	-1.76
234.0	0.130	0.142	0.154	-1.76
235.0	0.128	0.139	0.151	-1.75
236.0	0.126	0.137	0.149	-1.74

Resistance vs. Temperature Table

R25=50KΩ±1% B25/85=4050K±1%

TEMP. (℃)	MINIMUM (KΩ)	NOMINAL (KΩ)	MAXIMUM (KΩ)	ALPHA(%/℃)
237.0	0.124	0.135	0.146	-1.74
238.0	0.122	0.132	0.144	-1.73
239.0	0.119	0.130	0.141	-1.72
240.0	0.117	0.128	0.139	-1.72
241.0	0.115	0.126	0.137	-1.71
242.0	0.113	0.123	0.134	-1.71
243.0	0.111	0.121	0.132	-1.70
244.0	0.110	0.119	0.130	-1.69
245.0	0.108	0.117	0.128	-1.69
246.0	0.106	0.115	0.126	-1.68
247.0	0.104	0.113	0.124	-1.68
248.0	0.102	0.112	0.122	-1.67
249.0	0.101	0.110	0.120	-1.66
250.0	0.099	0.108	0.118	-1.66
251.0	0.097	0.106	0.116	-1.65
252.0	0.096	0.104	0.114	-1.65
253.0	0.094	0.103	0.112	-1.64
254.0	0.093	0.101	0.110	-1.63
255.0	0.091	0.099	0.109	-1.63
256.0	0.090	0.098	0.107	-1.62
257.0	0.088	0.096	0.105	-1.62
258.0	0.087	0.095	0.103	-1.61
259.0	0.085	0.093	0.102	-1.60
260.0	0.084	0.092	0.100	-1.60
261.0	0.083	0.090	0.099	-1.59
262.0	0.081	0.089	0.097	-1.59
263.0	0.080	0.087	0.096	-1.58
264.0	0.079	0.086	0.094	-1.58
265.0	0.077	0.085	0.093	-1.57
266.0	0.076	0.083	0.091	-1.57
267.0	0.075	0.082	0.090	-1.56
268.0	0.074	0.081	0.088	-1.55
269.0	0.073	0.080	0.087	-1.55
270.0	0.072	0.078	0.086	-1.54
271.0	0.070	0.077	0.085	-1.54

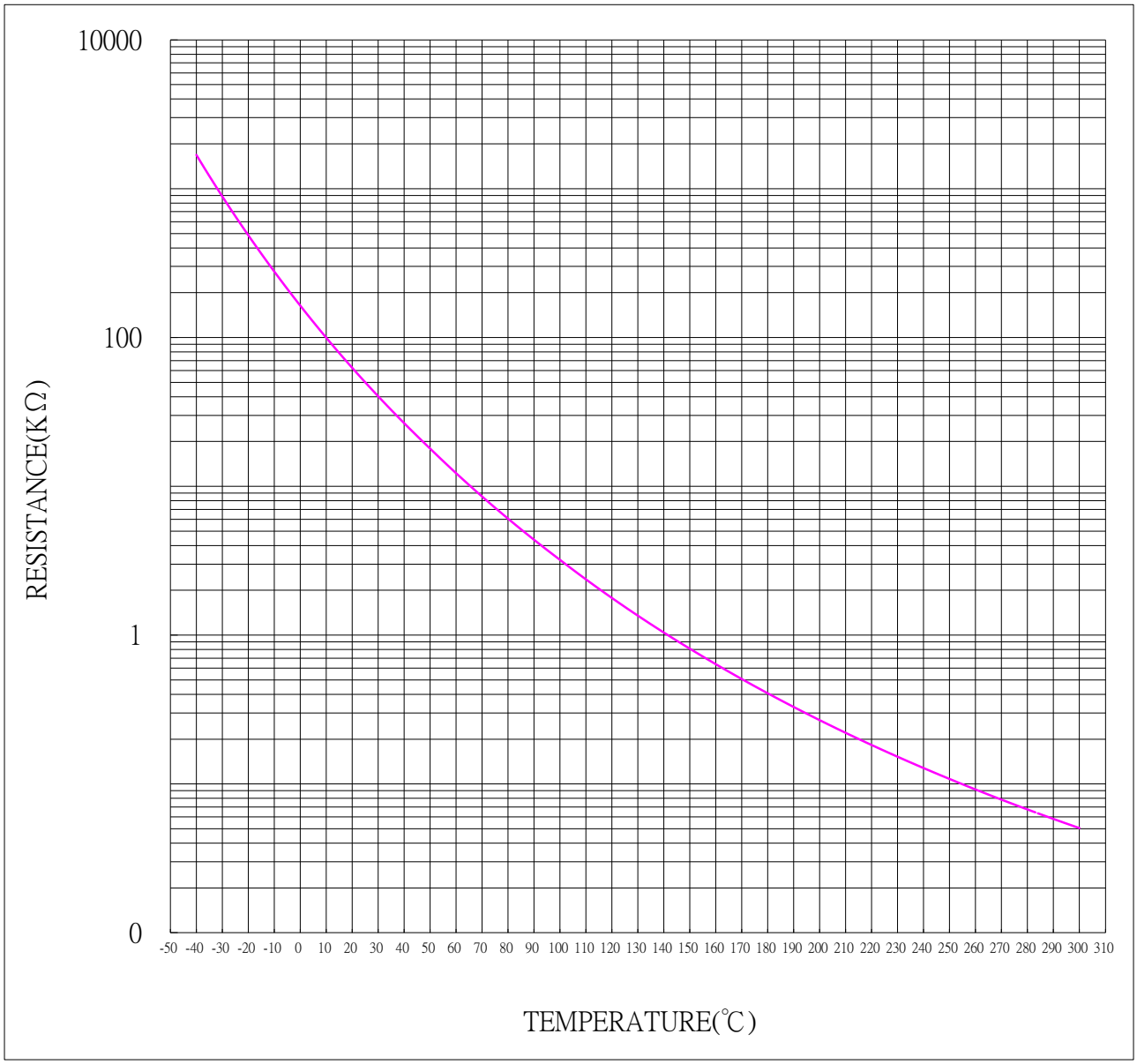
Resistance vs. Temperature Table

R25=50KΩ±1% B25/85=4050K±1%

TEMP. (℃)	MINIMUM (KΩ)	NOMINAL (KΩ)	MAXIMUM (KΩ)	ALPHA(%/℃)
272.0	0.069	0.076	0.083	-1.53
273.0	0.068	0.075	0.082	-1.53
274.0	0.067	0.074	0.081	-1.52
275.0	0.066	0.073	0.080	-1.52
276.0	0.065	0.072	0.078	-1.51
277.0	0.064	0.070	0.077	-1.51
278.0	0.063	0.069	0.076	-1.50
279.0	0.062	0.068	0.075	-1.50
280.0	0.061	0.067	0.074	-1.49
281.0	0.060	0.066	0.073	-1.49
282.0	0.060	0.065	0.072	-1.48
283.0	0.059	0.064	0.071	-1.48
284.0	0.058	0.063	0.070	-1.47
285.0	0.057	0.063	0.069	-1.47
286.0	0.056	0.062	0.068	-1.46
287.0	0.055	0.061	0.067	-1.46
288.0	0.054	0.060	0.066	-1.45
289.0	0.054	0.059	0.065	-1.45
290.0	0.053	0.058	0.064	-1.44
291.0	0.052	0.057	0.063	-1.44
292.0	0.051	0.057	0.062	-1.43
293.0	0.051	0.056	0.061	-1.43
294.0	0.050	0.055	0.060	-1.42
295.0	0.049	0.054	0.060	-1.42
296.0	0.049	0.053	0.059	-1.41
297.0	0.048	0.053	0.058	-1.41
298.0	0.047	0.052	0.057	-1.40
299.0	0.046	0.051	0.056	-1.40
300.0	0.046	0.050	0.056	-1.39

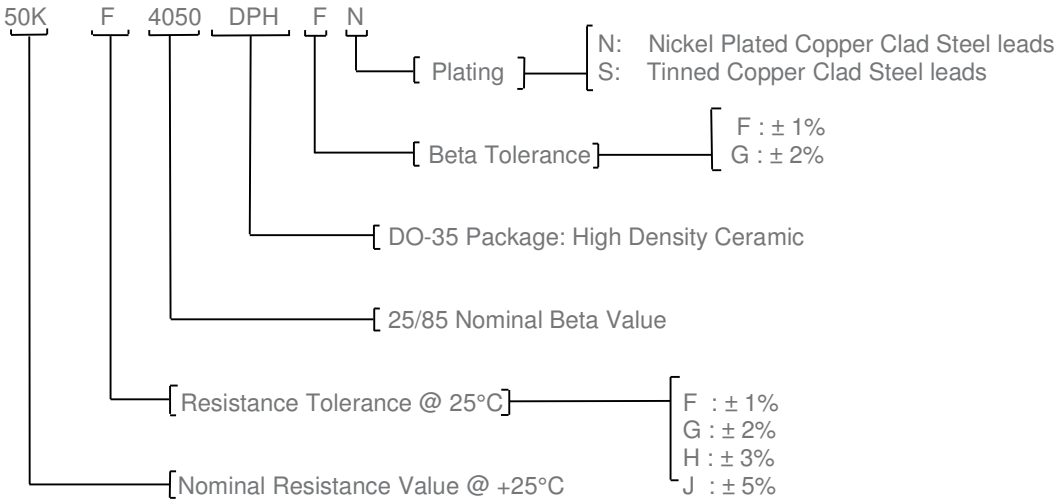
Resistance vs. Temperature Table

R25=50KΩ±1% B25/85=4050K±1%



Ordering Information

PART NUMBER	DESCRIPTION	NOM. Ω @25ºC	RES. TOLERANCE	PACKAGING
50KF4050DPHFN	DO-35 Series Thermistor (+300°C)" for Nickel version	50,000	± 1%	Bulk
50KF4050DPHFS	DO-35 Series Thermistor (+200°C)" for Tinned version	50,000	± 1%	Bulk



Other Resistance values available in this series

MEAS PART NUMBER	RESISTANCE [Ω] @ +25ºC	TOLERANCE @ +25ºC	BETA VALUE 25/85	BETA TOLERANCE	OPERATING TEMPERATURE
5KF3950DPHFN	5000	± 1%	3950	± 1%	-40º to +300ºC
5KF3950DPHFS	5000	± 1%	3950	± 1%	-40º to +200ºC
10KF3450DPHFN	10000	± 1%	3450	± 1%	-40º to +300ºC
10KF3450DPHFS	10000	± 1%	3450	± 1%	-40º to +200ºC
10KF3977DPHFN	10000	± 1%	3977	± 1%	-40º to +300ºC
10KF3977DPHFS	10000	± 1%	3977	± 1%	-40º to +200ºC

NORTH AMERICA

Measurement Specialties, Inc.,
a TE Connectivity Company
910 Turnpike Road
Shrewsbury, MA 01545
Tel : 1-508-842-0516
Fax : 1-508-842-0342
Email: customercare.ando@te.com

EUROPE

Measurement Specialties (Europe), Ltd.,
a TE Connectivity Company
Ballybrit Business Park
Galway Ireland
Tel : +353-91-753238
Fax : +353-91-770789
Email: customercare.glwy@te.com

ASIA

Measurement Specialties (China), Ltd.,
a TE Connectivity Company
No. 368 Wulian 1st Road
Gongxing Town
Shuangliu, Chengdu
Sichuan, 610200
China
Tel: +86 (0) 28 8573 9088
Fax: +86 (0) 28 8573 9070
Email: customercare.chdu@te.com

te.com/sensorsolutions