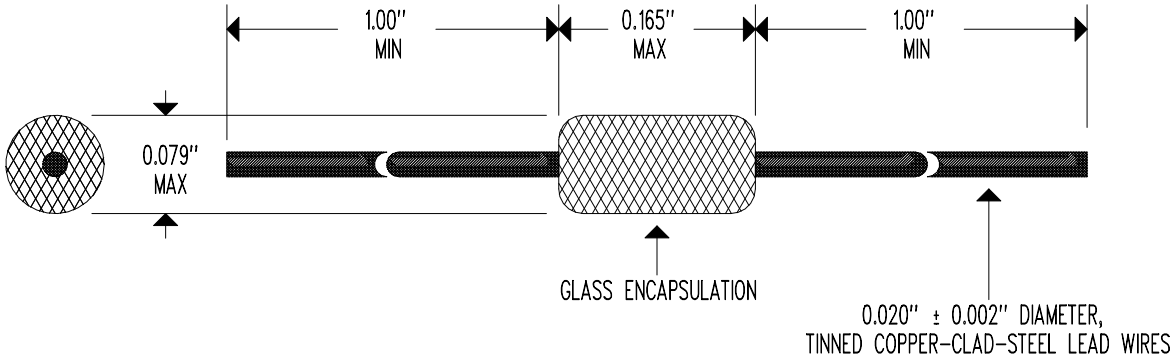

REV	DESCRIPTION	DATE	APP
0	INITIAL RELEASE	11/14/2018	DD

REVISION HISTORY

RESISTANCE @ +25°C = 1,000 Ω ± 5%
RESISTANCE/TEMPERATURE CURVE = "6"
BETA "β" (0 TO +50°C) = 2,952°K NOMINAL
TEMPERATURE COEFFICIENT @ +25°C = −3.32%/°C NOMINAL
DISSIPATION CONSTANT = 2 mW/°C NOMINAL (AIR)
THERMAL TIME CONSTANT = 10 SECONDS NOMINAL (AIR)
MAXIMUM TEMPERATURE RATING = +220°C

ROHS COMPLIANT

PACKAGING: SEE TABLE

PART NUMBER	PACKAGING
ED3506J102-B	BULK
ED3506J102-T	TAPE & REEL PER IEC 60286-1

EI SENSOR TECHNOLOGIES
www.ei-sensor.com

P/N ED3506J102-

NTC THERMISTOR

DRAWN BY: DAN DANKERT

SCALE: NONE | LAYER: 0 OF 2

REV: 0 | DATE: 11/14/2018

EI Sensor Technologies

Resistance Versus Temperature Table

P/N ED3506J102 Revision "0"

Resistance @ +25°C = 1,000 Ω

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C/R@+25°C)	Resistance (Ω Nominal)
-55	-67.0	32.200	32,200
-54	-65.2	30.458	30,458
-53	-63.4	28.822	28,822
-52	-61.6	27.284	27,284
-51	-59.8	25.837	25,837
-50	-58.0	24.477	24,477
-49	-56.2	23.196	23,196
-48	-54.4	21.991	21,991
-47	-52.6	20.855	20,855
-46	-50.8	19.786	19,786
-45	-49.0	18.778	18,778
-44	-47.2	17.827	17,827
-43	-45.4	16.931	16,931
-42	-43.6	16.085	16,085
-41	-41.8	15.287	15,287
-40	-40.0	14.533	14,533
-39	-38.2	13.821	13,821
-38	-36.4	13.148	13,148
-37	-34.6	12.512	12,512
-36	-32.8	11.911	11,911
-35	-31.0	11.342	11,342
-34	-29.2	10.804	10,804
-33	-27.4	10.295	10,295
-32	-25.6	9.813	9,812.9
-31	-23.8	9.356	9,356.3
-30	-22.0	8.924	8,923.7

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C/R@+25°C)	Resistance (Ω Nominal)
-29	-20.2	8.514	8,513.7
-28	-18.4	8.125	8,125.0
-27	-16.6	7.756	7,756.4
-26	-14.8	7.4068	7,406.8
-25	-13.0	7.0750	7,075.0
-24	-11.2	6.7601	6,760.1
-23	-9.4	6.4610	6,461.0
-22	-7.6	6.1770	6,177.0
-21	-5.8	5.9072	5,907.2
-20	-4.0	5.6507	5,650.7
-19	-2.2	5.4069	5,406.9
-18	-0.4	5.1751	5,175.1
-17	1.4	4.9546	4,954.6
-16	3.2	4.7447	4,744.7
-15	5.0	4.5450	4,545.0
-14	6.8	4.3549	4,354.9
-13	8.6	4.1739	4,173.9
-12	10.4	4.0014	4,001.4
-11	12.2	3.8371	3,837.1
-10	14.0	3.6805	3,680.5
-9	15.8	3.5311	3,531.1
-8	17.6	3.3888	3,388.8
-7	19.4	3.2529	3,252.9
-6	21.2	3.1234	3,123.4
-5	23.0	2.9997	2,999.7
-4	24.8	2.8816	2,881.6
-3	26.6	2.7689	2,768.9
-2	28.4	2.6612	2,661.2
-1	30.2	2.5583	2,558.3
0	32.0	2.4600	2,460.0
1	33.8	2.3659	2,365.9
2	35.6	2.2761	2,276.1
3	37.4	2.1902	2,190.2
4	39.2	2.1082	2,108.2
5	41.0	2.0298	2,029.8
6	42.8	1.9547	1,954.7
7	44.6	1.8830	1,883.0
8	46.4	1.8143	1,814.3
9	48.2	1.7486	1,748.6
10	50.0	1.6857	1,685.7

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C/R@+25°C)	Resistance (Ω Nominal)
11	51.8	1.6254	1,625.4
12	53.6	1.5677	1,567.7
13	55.4	1.5124	1,512.4
14	57.2	1.4594	1,459.4
15	59.0	1.4085	1,408.5
16	60.8	1.3597	1,359.7
17	62.6	1.3130	1,313.0
18	64.4	1.2681	1,268.1
19	66.2	1.2250	1,225.0
20	68.0	1.1836	1,183.6
21	69.8	1.1439	1,143.9
22	71.6	1.1058	1,105.8
23	73.4	1.0691	1,069.1
24	75.2	1.0339	1,033.9
25	77.0	1.0000	1,000.0
26	78.8	0.96744	967.44
27	80.6	0.93613	936.13
28	82.4	0.90601	906.01
29	84.2	0.87703	877.03
30	86.0	0.84915	849.15
31	87.8	0.82230	822.30
32	89.6	0.79646	796.46
33	91.4	0.77157	771.57
34	93.2	0.74760	747.60
35	95.0	0.72451	724.51
36	96.8	0.70225	702.25
37	98.6	0.68081	680.81
38	100.4	0.66013	660.13
39	102.2	0.64019	640.19
40	104.0	0.62097	620.97
41	105.8	0.60243	602.43
42	107.6	0.58453	584.53
43	109.4	0.56727	567.27
44	111.2	0.55061	550.61
45	113.0	0.53452	534.52
46	114.8	0.51899	518.99
47	116.6	0.50400	504.00
48	118.4	0.48951	489.51
49	120.2	0.47552	475.52
50	122.0	0.46200	462.00

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C/R@+25°C)	Resistance (Ω Nominal)
51	123.8	0.44893	448.93
52	125.6	0.43631	436.31
53	127.4	0.42410	424.10
54	129.2	0.41229	412.29
55	131.0	0.40088	400.88
56	132.8	0.38984	389.84
57	134.6	0.37916	379.16
58	136.4	0.36882	368.82
59	138.2	0.35882	358.82
60	140.0	0.34914	349.14
61	141.8	0.33977	339.77
62	143.6	0.33070	330.70
63	145.4	0.32192	321.92
64	147.2	0.31341	313.41
65	149.0	0.30517	305.17
66	150.8	0.29718	297.18
67	152.6	0.28945	289.45
68	154.4	0.28195	281.95
69	156.2	0.27469	274.69
70	158.0	0.26764	267.64
71	159.8	0.26081	260.81
72	161.6	0.25419	254.19
73	163.4	0.24777	247.77
74	165.2	0.24154	241.54
75	167.0	0.23550	235.50
76	168.8	0.23003	230.03
77	170.6	0.22426	224.26
78	172.4	0.21868	218.68
79	174.2	0.21327	213.27
80	176.0	0.20804	208.04
81	177.8	0.20297	202.97
82	179.6	0.19807	198.07
83	181.4	0.19331	193.31
84	183.2	0.18870	188.70
85	185.0	0.18423	184.23
86	186.8	0.17990	179.90
87	188.6	0.17570	175.70
88	190.4	0.17162	171.62
89	192.2	0.16766	167.66
90	194.0	0.16383	163.83

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C/R@+25°C)	Resistance (Ω Nominal)
91	195.8	0.16010	160.10
92	197.6	0.15648	156.48
93	199.4	0.15297	152.97
94	201.2	0.14956	149.56
95	203.0	0.14624	146.24
96	204.8	0.14302	143.02
97	206.6	0.13988	139.88
98	208.4	0.136840	136.84
99	210.2	0.133879	133.88
100	212.0	0.131000	131.00
101	213.8	0.128199	128.20
102	215.6	0.125475	125.48
103	217.4	0.122824	122.82
104	219.2	0.120244	120.24
105	221.0	0.117732	117.73
106	222.8	0.115287	115.29
107	224.6	0.112906	112.91
108	226.4	0.110587	110.59
109	228.2	0.108328	108.33
110	230.0	0.106128	106.13
111	231.8	0.103983	103.98
112	233.6	0.101894	101.89
113	235.4	0.099857	99.857
114	237.2	0.097872	97.872
115	239.0	0.095936	95.936
116	240.8	0.094048	94.048
117	242.6	0.092207	92.207
118	244.4	0.090412	90.412
119	246.2	0.088660	88.660
120	248.0	0.086950	86.950
121	249.8	0.085283	85.283
122	251.6	0.083655	83.655
123	253.4	0.082066	82.066
124	255.2	0.080515	80.515
125	257.0	0.079000	79.000
126	258.8	0.077521	77.521
127	260.6	0.076077	76.077
128	262.4	0.074666	74.666
129	264.2	0.073288	73.288
130	266.0	0.071942	71.942

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C/R@+25°C)	Resistance (Ω Nominal)
131	267.8	0.070626	70.626
132	269.6	0.069341	69.341
133	271.4	0.068084	68.084
134	273.2	0.066857	66.857
135	275.0	0.065656	65.656
136	276.8	0.064483	64.483
137	278.6	0.063335	63.335
138	280.4	0.062213	62.213
139	282.2	0.061115	61.115
140	284.0	0.060042	60.042
141	285.8	0.058992	58.992
142	287.6	0.057965	57.965
143	289.4	0.056960	56.960
144	291.2	0.055977	55.977
145	293.0	0.055014	55.014
146	294.8	0.054073	54.073
147	296.6	0.053151	53.151
148	298.4	0.052248	52.248
149	300.2	0.051365	51.365
150	302.0	0.050500	50.500
151	303.8	0.049405	49.405
152	305.6	0.048349	48.349
153	307.4	0.047330	47.330
154	309.2	0.046346	46.346
155	311.0	0.045396	45.396
156	312.8	0.044477	44.477
157	314.6	0.043588	43.588
158	316.4	0.042728	42.728
159	318.2	0.041895	41.895
160	320.0	0.041088	41.088
161	321.8	0.040306	40.306
162	323.6	0.039548	39.548
163	325.4	0.038812	38.812
164	327.2	0.038098	38.098
165	329.0	0.037404	37.404
166	330.8	0.036730	36.730
167	332.6	0.036075	36.075
168	334.4	0.035437	35.437
169	336.2	0.034817	34.817
170	338.0	0.034214	34.214

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C/R@+25°C)	Resistance (Ω Nominal)
171	339.8	0.033626	33.626
172	341.6	0.033053	33.053
173	343.4	0.032495	32.495
174	345.2	0.031951	31.951
175	347.0	0.031420	31.420
176	348.8	0.030902	30.902
177	350.6	0.030396	30.396
178	352.4	0.029902	29.902
179	354.2	0.029420	29.420
180	356.0	0.028948	28.948
181	357.8	0.028487	28.487
182	359.6	0.028036	28.036
183	361.4	0.027595	27.595
184	363.2	0.027163	27.163
185	365.0	0.026740	26.740
186	366.8	0.026326	26.326
187	368.6	0.025920	25.920
188	370.4	0.025523	25.523
189	372.2	0.025133	25.133
190	374.0	0.024751	24.751
191	375.8	0.024377	24.377
192	377.6	0.024009	24.009
193	379.4	0.023649	23.649
194	381.2	0.023295	23.295
195	383.0	0.022947	22.947
196	384.8	0.022606	22.606
197	386.6	0.022271	22.271
198	388.4	0.021942	21.942
199	390.2	0.021618	21.618
200	392.0	0.021300	21.300
201	393.8	0.020987	20.987
202	395.6	0.020680	20.680
203	397.4	0.020378	20.378
204	399.2	0.020080	20.080
205	401.0	0.019787	19.787
206	402.8	0.019500	19.500
207	404.6	0.019216	19.216
208	406.4	0.018937	18.937
209	408.2	0.018663	18.663
210	410.0	0.018392	18.392

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C/R@+25°C)	Resistance (Ω Nominal)
211	411.8	0.018126	18.126
212	413.6	0.017864	17.864
213	415.4	0.017605	17.605
214	417.2	0.017351	17.351
215	419.0	0.017100	17.100
216	420.8	0.016853	16.853
217	422.6	0.016610	16.610
218	424.4	0.016370	16.370
219	426.2	0.016133	16.133
220	428.0	0.015900	15.900