



REV	DESCRIPTION	DATE	APP
0	INITIAL RELEASE	12/18/2018	DD
REVISION HISTORY			

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P/N EPT121R103	SCALE: NONE	LAYER: 0 OF 2
	REV: 0	DATE: 12/18/2018

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RESISTANCE @ +25°C = 10,000 Ω NOMINAL  
 ACCURACY (0 TO +70°C) = ± 0.20°C  
 RESISTANCE/TEMPERATURE CURVE = "21A"  
 BETA "β" (0 TO +50°C) = 3,575°K NOMINAL  
 TEMPERATURE COEFFICIENT @ +25°C = -4.04%/°C NOMINAL  
 DISSIPATION CONSTANT = 1 mW/°C NOMINAL (AIR)  
 THERMAL TIME CONSTANT = 10 SECONDS NOMINAL (AIR)  
 MAXIMUM TEMPERATURE RATING = +150°C

MAXIMUM EXPOSURE TEMPERATURE FOR BEST LONG-TERM DRIFT = +120°C

ROHS COMPLIANT

# El Sensor Technologies

## Resistance Versus Temperature Table

P/N EPT121R103 Revision "0"

Resistance @ +25°C = 10,000 Ω

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C/R@+25°C)	Resistance (Ω Nominal)
-55	-67.0	60.8564	608,564
-54	-65.2	57.0238	570,238
-53	-63.4	53.4560	534,560
-52	-61.6	50.1332	501,332
-51	-59.8	47.0372	470,372
-50	-58.0	44.1511	441,511
-49	-56.2	41.4594	414,594
-48	-54.4	38.9481	389,481
-47	-52.6	36.6039	366,039
-46	-50.8	34.4148	344,148
-45	-49.0	32.3697	323,697
-44	-47.2	30.4583	304,583
-43	-45.4	28.6710	286,710
-42	-43.6	26.9992	269,992
-41	-41.8	25.4347	254,347
-40	-40.0	23.9700	239,700
-39	-38.2	22.5974	225,974
-38	-36.4	21.3120	213,120
-37	-34.6	20.1076	201,076
-36	-32.8	18.9787	189,787
-35	-31.0	17.9200	179,200
-34	-29.2	16.9255	169,255
-33	-27.4	15.9922	159,922

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C / R@+25°C)	Resistance (Ω Nominal)
-32	-25.6	15.1160	151,160
-31	-23.8	14.2932	142,932
-30	-22.0	13.5200	135,200
-29	-20.2	12.7925	127,925
-28	-18.4	12.1086	121,086
-27	-16.6	11.4652	114,652
-26	-14.8	10.8598	108,598
-25	-13.0	10.2900	102,900
-24	-11.2	9.7512	97,512
-23	-9.4	9.2439	92,439
-22	-7.6	8.7660	87,660
-21	-5.8	8.3156	83,156
-20	-4.0	7.8910	78,910
-19	-2.2	7.4906	74,906
-18	-0.4	7.1129	71,129
-17	1.4	6.7564	67,564
-16	3.2	6.4199	64,199
-15	5.0	6.1020	61,020
-14	6.8	5.8012	58,012
-13	8.6	5.5170	55,170
-12	10.4	5.2484	52,484
-11	12.2	4.9943	49,943
-10	14.0	4.7540	47,540
-9	15.8	4.5264	45,264
-8	17.6	4.3110	43,110
-7	19.4	4.1071	41,071
-6	21.2	3.9140	39,140
-5	23.0	3.7310	37,310
-4	24.8	3.5576	35,576
-3	26.6	3.3931	33,931
-2	28.4	3.2372	32,372
-1	30.2	3.0893	30,893
0	32.0	2.9490	29,490
1	33.8	2.8156	28,156
2	35.6	2.6890	26,890
3	37.4	2.5687	25,687
4	39.2	2.4545	24,545

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C / R@+25°C)	Resistance (Ω Nominal)
5	41.0	2.3460	23,460
6	42.8	2.2430	22,430
7	44.6	2.1451	21,451
8	46.4	2.0519	20,519
9	48.2	1.9633	19,633
10	50.0	1.8790	18,790
11	51.8	1.7987	17,987
12	53.6	1.7222	17,222
13	55.4	1.6494	16,494
14	57.2	1.5801	15,801
15	59.0	1.5140	15,140
16	60.8	1.4510	14,510
17	62.6	1.3910	13,910
18	64.4	1.3337	13,337
19	66.2	1.2791	12,791
20	68.0	1.2270	12,270
21	69.8	1.1773	11,773
22	71.6	1.1298	11,298
23	73.4	1.0845	10,845
24	75.2	1.0413	10,413
25	77.0	1.0000	10,000
26	78.8	0.9606	9,606.0
27	80.6	0.9229	9,229.0
28	82.4	0.8869	8,869.0
29	84.2	0.8525	8,525.0
30	86.0	0.8196	8,196.0
31	87.8	0.7882	7,882.0
32	89.6	0.7581	7,581.0
33	91.4	0.7293	7,293.0
34	93.2	0.7018	7,018.0
35	95.0	0.6754	6,754.0
36	96.8	0.6502	6,502.0
37	98.6	0.6260	6,260.0
38	100.4	0.6028	6,028.0
39	102.2	0.5807	5,807.0
40	104.0	0.5594	5,594.0
41	105.8	0.5390	5,390.0

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C / R@+25°C)	Resistance (Ω Nominal)
42	107.6	0.5195	5,195.0
43	109.4	0.5007	5,007.0
44	111.2	0.4827	4,827.0
45	113.0	0.4655	4,655.0
46	114.8	0.4490	4,490.0
47	116.6	0.4331	4,331.0
48	118.4	0.4179	4,179.0
49	120.2	0.4033	4,033.0
50	122.0	0.3893	3,893.0
51	123.8	0.3758	3,758.0
52	125.6	0.3629	3,629.0
53	127.4	0.3504	3,504.0
54	129.2	0.3385	3,385.0
55	131.0	0.3270	3,270.0
56	132.8	0.3160	3,160.0
57	134.6	0.3054	3,054.0
58	136.4	0.2952	2,952.0
59	138.2	0.2854	2,854.0
60	140.0	0.2760	2,760.0
61	141.8	0.2669	2,669.0
62	143.6	0.2582	2,582.0
63	145.4	0.2497	2,497.0
64	147.2	0.2416	2,416.0
65	149.0	0.2338	2,338.0
66	150.8	0.2263	2,263.0
67	152.6	0.2191	2,191.0
68	154.4	0.2121	2,121.0
69	156.2	0.2055	2,055.0
70	158.0	0.1990	1,990.0
71	159.8	0.1928	1,928.0
72	161.6	0.1868	1,868.0
73	163.4	0.1810	1,810.0
74	165.2	0.1754	1,754.0
75	167.0	0.1700	1,700.0
76	168.8	0.1648	1,648.0
77	170.6	0.1598	1,598.0
78	172.4	0.1549	1,549.0

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C / R@+25°C)	Resistance (Ω Nominal)
79	174.2	0.1502	1,502.0
80	176.0	0.1457	1,457.0
81	177.8	0.1414	1,414.0
82	179.6	0.1372	1,372.0
83	181.4	0.1331	1,331.0
84	183.2	0.1292	1,292.0
85	185.0	0.1254	1,254.0
86	186.8	0.1218	1,218.0
87	188.6	0.1183	1,183.0
88	190.4	0.1149	1,149.0
89	192.2	0.1116	1,116.0
90	194.0	0.1084	1,084.0
91	195.8	0.1053	1,053.0
92	197.6	0.1023	1,023.0
93	199.4	0.09940	994.00
94	201.2	0.09660	966.00
95	203.0	0.09390	939.00
96	204.8	0.09130	913.00
97	206.6	0.08880	888.00
98	208.4	0.08630	863.00
99	210.2	0.08400	840.00
100	212.0	0.08170	817.00
101	213.8	0.07950	795.00
102	215.6	0.07730	773.00
103	217.4	0.07520	752.00
104	219.2	0.07320	732.00
105	221.0	0.07130	713.00
106	222.8	0.06940	694.00
107	224.6	0.06750	675.00
108	226.4	0.06580	658.00
109	228.2	0.06400	640.00
110	230.0	0.06240	624.00
111	231.8	0.06080	608.00
112	233.6	0.05920	592.00
113	235.4	0.05770	577.00
114	237.2	0.05620	562.00
115	239.0	0.05480	548.00

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C / R@+25°C)	Resistance (Ω Nominal)
116	240.8	0.05340	534.00
117	242.6	0.05200	520.00
118	244.4	0.05070	507.00
119	246.2	0.04940	494.00
120	248.0	0.04820	482.00
121	249.8	0.04700	470.00
122	251.6	0.04590	459.00
123	253.4	0.04470	447.00
124	255.2	0.04360	436.00
125	257.0	0.04260	426.00
126	258.8	0.04150	415.00
127	260.6	0.04050	405.00
128	262.4	0.03960	396.00
129	264.2	0.03860	386.00
130	266.0	0.03770	377.00
131	267.8	0.03680	368.00
132	269.6	0.03590	359.00
133	271.4	0.03510	351.00
134	273.2	0.03430	343.00
135	275.0	0.03350	335.00
136	276.8	0.03272	327.20
137	278.6	0.03197	319.70
138	280.4	0.03123	312.30
139	282.2	0.03052	305.20
140	284.0	0.02982	298.20
141	285.8	0.02914	291.40
142	287.6	0.02848	284.80
143	289.4	0.02784	278.40
144	291.2	0.02722	272.20
145	293.0	0.02661	266.10
146	294.8	0.02602	260.20
147	296.6	0.02544	254.40
148	298.4	0.02488	248.80
149	300.2	0.02433	243.30
150	302.0	0.02380	238.00