



REV	DESCRIPTION	DATE	APP
1	CURVE WAS 30	12/18/2018	DD
0	INITIAL RELEASE	11/19/2018	DD

REVISION HISTORY

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	DRAWN BY: DAN DANKERT	
P/N EPT130R302	SCALE: NONE	LAYER: 0 OF 2
	REV: 1	DATE: 11/19/2018

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RESISTANCE @ +25°C = 3,000 Ω NOMINAL  
 ACCURACY (0 TO +70°C) = ± 0.20°C  
 RESISTANCE/TEMPERATURE CURVE = "30A"  
 BETA "β" (0 TO +50°C) = 3,892°K NOMINAL  
 TEMPERATURE COEFFICIENT @ +25°C = -4.39%/°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 EPT130R302 Revision "1"

Resistance @ +25°C = 3,000 Ω

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C/R@+25°C)	Resistance (Ω Nominal)
-55	-67.0	107.4707	322,412
-54	-65.2	98.9142	296,742
-53	-63.4	91.1154	273,346
-52	-61.6	84.0010	252,003
-51	-59.8	77.5055	232,517
-50	-58.0	71.5700	214,710
-49	-56.2	66.1416	198,425
-48	-54.4	61.1730	183,519
-47	-52.6	56.6214	169,864
-46	-50.8	52.4486	157,346
-45	-49.0	48.6200	145,860
-44	-47.2	45.1038	135,311
-43	-45.4	41.8726	125,618
-42	-43.6	38.9012	116,704
-41	-41.8	36.1665	108,500
-40	-40.0	33.6479	100,944
-39	-38.2	31.4902	94,471
-38	-36.4	29.4849	88,455
-37	-34.6	27.6194	82,858
-36	-32.8	25.8837	77,651
-35	-31.0	24.2682	72,805
-34	-29.2	22.7633	68,290
-33	-27.4	21.3610	64,083
-32	-25.6	20.0537	60,161
-31	-23.8	18.8348	56,504
-30	-22.0	17.6976	53,093

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C / R@+25°C)	Resistance (Ω Nominal)
-29	-20.2	16.6354	49,906
-28	-18.4	15.6443	46,933
-27	-16.6	14.7176	44,153
-26	-14.8	13.8517	41,555
-25	-13.0	13.0422	39,127
-24	-11.2	12.2846	36,854
-23	-9.4	11.5759	34,728
-22	-7.6	10.9121	32,736
-21	-5.8	10.2904	30,871
-20	-4.0	9.7083	29,125
-19	-2.2	9.1621	27,486
-18	-0.4	8.6501	25,950
-17	1.4	8.1696	24,509
-16	3.2	7.7189	23,157
-15	5.0	7.2957	21,887
-14	6.8	6.8983	20,695
-13	8.6	6.5244	19,573
-12	10.4	6.1736	18,521
-11	12.2	5.8433	17,530
-10	14.0	5.5329	16,599
-9	15.8	5.2407	15,722
-8	17.6	4.9658	14,897
-7	19.4	4.7065	14,119
-6	21.2	4.4627	13,388
-5	23.0	4.2327	12,698
-4	24.8	4.0160	12,048
-3	26.6	3.8113	11,434
-2	28.4	3.6186	10,856
-1	30.2	3.4369	10,311
0	32.0	3.2650	9,795.0
1	33.8	3.1030	9,309.1
2	35.6	2.9498	8,849.5
3	37.4	2.8051	8,415.2
4	39.2	2.6683	8,004.9
5	41.0	2.5391	7,617.2
6	42.8	2.4170	7,250.9
7	44.6	2.3015	6,904.5
8	46.4	2.1918	6,575.5
9	48.2	2.0884	6,265.1
10	50.0	1.9902	5,970.7

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C / R@+ 25°C)	Resistance (Ω Nominal)
11	51.8	1.8970	5,690.9
12	53.6	1.8091	5,427.2
13	55.4	1.7256	5,176.7
14	57.2	1.6461	4,938.3
15	59.0	1.5710	4,713.1
16	60.8	1.5000	4,500.0
17	62.6	1.4325	4,297.5
18	64.4	1.3681	4,104.4
19	66.2	1.3073	3,921.8
20	68.0	1.2491	3,747.3
21	69.8	1.1940	3,582.1
22	71.6	1.1421	3,426.3
23	73.4	1.0924	3,277.1
24	75.2	1.0448	3,134.5
25	77.0	1.0000	3,000.0
26	78.8	0.95737	2,872.1
27	80.6	0.91652	2,749.6
28	82.4	0.87789	2,633.7
29	84.2	0.84059	2,521.8
30	86.0	0.80551	2,416.5
31	87.8	0.77220	2,316.6
32	89.6	0.74023	2,220.7
33	91.4	0.70959	2,128.8
34	93.2	0.68073	2,042.2
35	95.0	0.65320	1,959.6
36	96.8	0.62655	1,879.7
37	98.6	0.60169	1,805.1
38	100.4	0.57771	1,733.1
39	102.2	0.55462	1,663.9
40	104.0	0.53242	1,597.2
41	105.8	0.51155	1,534.6
42	107.6	0.49156	1,474.7
43	109.4	0.47247	1,417.4
44	111.2	0.45426	1,362.8
45	113.0	0.43681	1,310.4
46	114.8	0.42012	1,260.3
47	116.6	0.40409	1,212.3
48	118.4	0.38881	1,166.4
49	120.2	0.37420	1,122.6
50	122.0	0.36021	1,080.6

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C / R@+25°C)	Resistance (Ω Nominal)
51	123.8	0.34680	1,040.4
52	125.6	0.33401	1,002.0
53	127.4	0.32171	965.14
54	129.2	0.30990	929.71
55	131.0	0.29858	895.74
56	132.8	0.28779	863.37
57	134.6	0.27740	832.19
58	136.4	0.26750	802.49
59	138.2	0.25790	773.71
60	140.0	0.24880	746.40
61	141.8	0.24001	720.03
62	143.6	0.23162	694.85
63	145.4	0.22349	670.47
64	147.2	0.21572	647.16
65	149.0	0.20830	624.91
66	150.8	0.20111	603.33
67	152.6	0.19418	582.55
68	154.4	0.18761	562.83
69	156.2	0.18131	543.92
70	158.0	0.17520	525.60
71	159.8	0.16932	507.95
72	161.6	0.16372	491.16
73	163.4	0.15821	474.64
74	165.2	0.15302	459.06
75	167.0	0.14800	444.01
76	168.8	0.14321	429.62
77	170.6	0.13850	415.50
78	172.4	0.13401	402.04
79	174.2	0.12971	389.12
80	176.0	0.12549	376.47
81	177.8	0.12149	364.48
82	179.6	0.11772	353.15
83	181.4	0.11399	341.96
84	183.2	0.11039	331.17
85	185.0	0.10702	321.05
86	186.8	0.10369	311.06
87	188.6	0.10049	301.47
88	190.4	0.097380	292.14
89	192.2	0.094405	283.21
90	194.0	0.091563	274.69

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C / R@+25°C)	Resistance (Ω Nominal)
91	195.8	0.088766	266.30
92	197.6	0.086101	258.30
93	199.4	0.083526	250.58
94	201.2	0.081039	243.12
95	203.0	0.078641	235.92
96	204.8	0.076332	229.00
97	206.6	0.074112	222.34
98	208.4	0.071980	215.94
99	210.2	0.069849	209.55
100	212.0	0.067851	203.55
101	213.8	0.065897	197.69
102	215.6	0.064032	192.10
103	217.4	0.062211	186.63
104	219.2	0.060480	181.44
105	221.0	0.058748	176.24
106	222.8	0.057105	171.31
107	224.6	0.055551	166.65
108	226.4	0.053996	161.99
109	228.2	0.052487	157.46
110	230.0	0.051066	153.20
111	231.8	0.049689	149.07
112	233.6	0.048313	144.94
113	235.4	0.047025	141.07
114	237.2	0.045737	137.21
115	239.0	0.044538	133.61
116	240.8	0.043339	130.02
117	242.6	0.042189	126.57
118	244.4	0.041079	123.24
119	246.2	0.040000	120.00
120	248.0	0.038961	116.88
121	249.8	0.037940	113.82
122	251.6	0.036958	110.87
123	253.4	0.036008	108.02
124	255.2	0.035089	105.27
125	257.0	0.034192	102.58
126	258.8	0.033321	99.964
127	260.6	0.032478	97.433
128	262.4	0.031661	94.982
129	264.2	0.030870	92.611
130	266.0	0.030102	90.306

Temperature (°C)	Temperature (°F)	Resistance Ratio (R@x°C / R@+25°C)	Resistance (Ω Nominal)
131	267.8	0.029352	88.055
132	269.6	0.028628	85.884
133	271.4	0.027922	83.766
134	273.2	0.027238	81.714
135	275.0	0.026581	79.742
136	276.8	0.025928	77.784
137	278.6	0.025311	75.933
138	280.4	0.024698	74.094
139	282.2	0.024112	72.336
140	284.0	0.023530	70.591
141	285.8	0.022971	68.912
142	287.6	0.022429	67.287
143	289.4	0.021901	65.702
144	291.2	0.021390	64.170
145	293.0	0.020888	62.664
146	294.8	0.020409	61.226
147	296.6	0.019938	59.813
148	298.4	0.019480	58.441
149	300.2	0.019032	57.096
150	302.0	0.018610	55.830