

HONEYWELL
PART NUMBER
175-103LAE-301

ALL DIMENSIONS ARE IN METRIC UNITS

REV	CHANGE DOCUMENT	CHANGED BY	CHECK
B	0024087	MPH 08SEP06	RK

TERMINATION CONSTRUCTION

3 SIDES TERMINATION

TIN LAYER OVER NICKEL BARRIER
LEAD FREE

SOLDERABILITY

PER ANSI-J-STD-002

ELECTRICAL CHARACTERISTICS

BETA (B25/85): 3750±3%

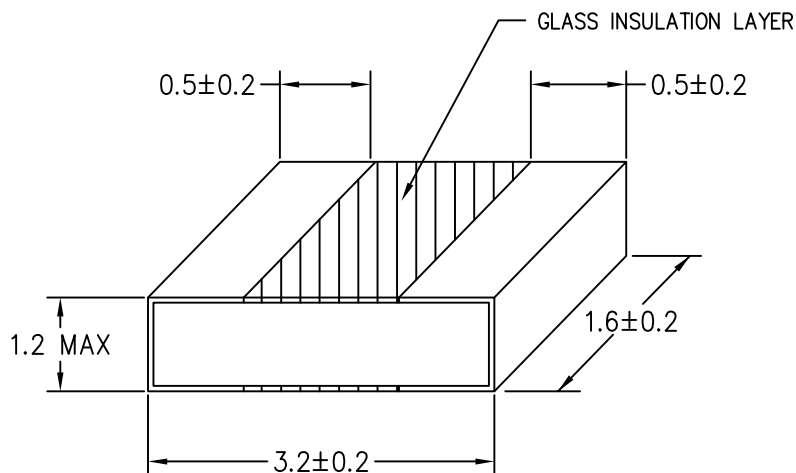
THERMAL DISSIPATION CONSTANT: 3.0mW/°C

MAX POWER RATING: 400mW

TIME CONSTANT: 10 SECONDS MAX

EAI DESIGNATION 1206

PACKAGING 3000 PIECE REEL, PLASTIC TAPE



RT CURVE CHARACTERISTICS

TEMP(°C)	MINIMUM (OHMS)	NOMINAL (OHMS)	MAXIMUM (OHMS)
25	9700	10000	10300

RATED TEMPERATURE: -40 TO +125°C

DESIGN UNITS:	MM
TOLERANCES UNLESS NOTED:	
NO PLACE	X ± *
ONE PLACE	.X ± *
TWO PLACE	.XX ± .01
THREE PLACE	.XXX ± .005
FOUR PLACE	.XXXX ± *
ANGLES	X ± .5° *
THIRD ANGLE PROJECTION	

DRAWN	MPH	08SEP06
CHECK	RK	08SEP06
THIS DRAWING COVERS A PROPRIETARY ITEM AND IS THE PROPERTY OF HONEYWELL. THIS DRAWING IS NOT TO BE COPIED OR USED WITHOUT THE PERMISSION OF HONEYWELL.		
INTERPRET PER ASME Y14.5M-1994 OTHER HONEYWELL ENGINEERING STANDARDS MAY APPLY		
AUTOCAD 2D		

Honeywell			
TITLE THERMISTOR OUTLINE			
SIZE	TYPE	DRAWING NAME	REV
A4	I	175-103LAE-301	B
SCALE	NTS	SHEET	1 OF 5

HONEYWELL

R-T CONVERSION TABLE

Part No. : 175-103LAE-301

R25 : 10 k-ohm Tolerance is 3%

B25/85 : 3750 K Tolerance is 3%

T(?)	R min.		R nom. k-ohm	R max.	
	k-ohm	%		k-ohm	%
-40	219.7	-11.92	249.5	283.0	13.44
-39	207.1	-11.76	234.7	265.7	13.23
-38	195.2	-11.60	220.8	249.6	13.02
-37	184.1	-11.44	207.9	234.6	12.82
-36	173.7	-11.28	195.8	220.5	12.61
-35	164.0	-11.12	184.5	207.5	12.41
-34	154.9	-10.97	174.0	195.2	12.22
-33	146.4	-10.81	164.1	183.8	12.02
-32	138.3	-10.65	154.8	173.1	11.82
-31	130.8	-10.50	146.2	163.2	11.63
-30	123.7	-10.35	138.0	153.8	11.44
-29	117.1	-10.19	130.4	145.1	11.25
-28	110.9	-10.04	123.2	136.9	11.06
-27	105.0	-9.89	116.5	129.2	10.87
-26	99.48	-9.74	110.2	122.0	10.69
-25	94.29	-9.59	104.3	115.2	10.51
-24	89.41	-9.44	98.73	108.9	10.32
-23	84.80	-9.29	93.49	103.0	10.14
-22	80.47	-9.14	88.57	97.39	9.97
-21	76.38	-9.00	83.94	92.15	9.79
-20	72.53	-8.85	79.58	87.23	9.61
-19	68.90	-8.71	75.47	82.59	9.44
-18	65.47	-8.56	71.60	78.24	9.27
-17	62.23	-8.42	67.96	74.14	9.10
-16	59.18	-8.28	64.52	70.28	8.93
-15	56.29	-8.13	61.28	66.64	8.76
-14	53.57	-7.99	58.22	63.22	8.59
-13	50.99	-7.85	55.33	59.99	8.42
-12	48.55	-7.71	52.61	56.95	8.26
-11	46.24	-7.57	50.03	54.08	8.10
-10	44.06	-7.44	47.60	51.38	7.94
-9	41.99	-7.30	45.30	48.82	7.78
-8	40.04	-7.16	43.12	46.41	7.62
-7	38.18	-7.02	41.07	44.13	7.46
-6	36.43	-6.89	39.12	41.98	7.30
-5	34.76	-6.75	37.28	39.94	7.15
-4	33.18	-6.62	35.53	38.02	6.99
-3	31.68	-6.49	33.88	36.20	6.84
-2	30.26	-6.35	32.31	34.48	6.69
-1	28.91	-6.22	30.83	32.85	6.54
0	27.63	-6.09	29.42	31.30	6.39
1	26.42	-5.96	28.09	29.84	6.24
2	25.26	-5.83	26.82	28.46	6.09
3	24.16	-5.70	25.62	27.14	5.95
4	23.12	-5.57	24.48	25.90	5.80
5	22.12	-5.44	23.40	24.72	5.66
6	21.18	-5.31	22.37	23.60	5.52
7	20.28	-5.19	21.39	22.54	5.38
8	19.42	-5.06	20.46	21.53	5.24
9	18.61	-4.93	19.58	20.57	5.10
10	17.83	-4.81	18.73	19.66	4.96
11	17.09	-4.69	17.94	18.80	4.82
12	16.39	-4.56	17.17	17.98	4.68

HONEYWELL

R-T CONVERSION TABLE

Part No. : 175-103LAE-301

R25 : 10 k-ohm Tolerance is 3%

B25/85 : 3750 K Tolerance is 3%

T(?)	R min.		R nom.	R max.	
	k-ohm	%		k-ohm	k-ohm
13	15.72	-4.44	16.45	17.20	4.55
14	15.08	-4.31	15.76	16.46	4.42
15	14.47	-4.19	15.10	15.75	4.28
16	13.89	-4.07	14.48	15.08	4.15
17	13.33	-3.95	13.88	14.44	4.02
18	12.80	-3.83	13.31	13.83	3.89
19	12.30	-3.71	12.77	13.25	3.76
20	11.81	-3.59	12.25	12.70	3.63
21	11.35	-3.47	11.76	12.17	3.50
22	10.91	-3.35	11.29	11.67	3.38
23	10.49	-3.23	10.84	11.19	3.25
24	10.09	-3.12	10.41	10.73	3.12
25	9.700	-3.00	10.00	10.30	3.00
26	9.311	-3.12	9.610	9.910	3.12
27	8.939	-3.23	9.237	9.537	3.25
28	8.584	-3.35	8.881	9.180	3.37
29	8.244	-3.46	8.539	8.837	3.49
30	7.919	-3.57	8.212	8.509	3.61
31	7.608	-3.68	7.899	8.194	3.73
32	7.311	-3.79	7.600	7.892	3.85
33	7.027	-3.91	7.313	7.603	3.97
34	6.755	-4.02	7.038	7.326	4.09
35	6.495	-4.13	6.774	7.059	4.21
36	6.245	-4.24	6.522	6.804	4.33
37	6.007	-4.34	6.280	6.559	4.45
38	5.778	-4.45	6.047	6.324	4.57
39	5.559	-4.56	5.825	6.098	4.68
40	5.350	-4.67	5.611	5.881	4.80
41	5.149	-4.77	5.407	5.673	4.92
42	4.956	-4.88	5.210	5.473	5.03
43	4.772	-4.98	5.022	5.280	5.15
44	4.595	-5.09	4.841	5.096	5.27
45	4.425	-5.19	4.667	4.918	5.38
46	4.262	-5.30	4.501	4.748	5.50
47	4.106	-5.40	4.340	4.584	5.61
48	3.956	-5.50	4.187	4.426	5.73
49	3.813	-5.60	4.039	4.275	5.84
50	3.675	-5.70	3.897	4.129	5.95
51	3.543	-5.80	3.761	3.989	6.07
52	3.415	-5.91	3.630	3.854	6.18
53	3.293	-6.01	3.504	3.724	6.29
54	3.176	-6.10	3.383	3.599	6.40
55	3.064	-6.20	3.266	3.479	6.52
56	2.956	-6.30	3.154	3.363	6.63
57	2.852	-6.40	3.047	3.252	6.74
58	2.752	-6.50	2.943	3.145	6.85
59	2.656	-6.59	2.843	3.041	6.96
60	2.564	-6.69	2.748	2.942	7.07
61	2.475	-6.78	2.655	2.846	7.18
62	2.390	-6.88	2.566	2.753	7.29
63	2.308	-6.97	2.481	2.664	7.40
64	2.229	-7.07	2.398	2.579	7.51
65	2.153	-7.16	2.319	2.496	7.62

HONEYWELL

R-T CONVERSION TABLE

Part No. : 175-103LAE-301

R25 : 10 k-ohm Tolerance is 3%

B25/85 : 3750 K Tolerance is 3%

T(?)	R min.		R nom.	R max.	
	k-ohm	%		k-ohm	k-ohm
66	2.080	-7.25	2.243	2.416	7.72
67	2.010	-7.35	2.169	2.339	7.83
68	1.942	-7.44	2.098	2.265	7.94
69	1.877	-7.53	2.030	2.193	8.05
70	1.814	-7.62	1.964	2.124	8.15
71	1.754	-7.71	1.901	2.058	8.26
72	1.696	-7.80	1.840	1.993	8.37
73	1.640	-7.89	1.781	1.931	8.47
74	1.586	-7.98	1.724	1.872	8.58
75	1.534	-8.07	1.669	1.814	8.68
76	1.484	-8.16	1.616	1.758	8.79
77	1.436	-8.25	1.565	1.704	8.89
78	1.389	-8.34	1.516	1.652	9.00
79	1.345	-8.42	1.468	1.602	9.10
80	1.301	-8.51	1.422	1.553	9.21
81	1.257	-8.60	1.375	1.503	9.32
82	1.218	-8.69	1.333	1.459	9.42
83	1.179	-8.77	1.293	1.416	9.52
84	1.143	-8.86	1.254	1.374	9.62
85	1.107	-8.94	1.216	1.334	9.72
86	1.073	-9.03	1.179	1.295	9.82
87	1.040	-9.10	1.144	1.258	9.92
88	1.008	-9.19	1.110	1.222	10.02
89	0.9776	-9.27	1.077	1.187	10.12
90	0.9479	-9.36	1.046	1.153	10.22
91	0.9194	-9.43	1.015	1.120	10.32
92	0.8918	-9.51	0.9855	1.088	10.42
93	0.8651	-9.59	0.9569	1.058	10.51
94	0.8394	-9.67	0.9293	1.028	10.61
95	0.8145	-9.75	0.9025	0.9992	10.71
96	0.7905	-9.83	0.8767	0.9714	10.80
97	0.7673	-9.91	0.8517	0.9445	10.90
98	0.7449	-9.98	0.8275	0.9185	11.00
99	0.7232	-10.06	0.8041	0.8933	11.09
100	0.7023	-10.14	0.7815	0.8689	11.19
101	0.6820	-10.22	0.7596	0.8453	11.28
102	0.6624	-10.30	0.7384	0.8225	11.38
103	0.6435	-10.37	0.7179	0.8003	11.47
104	0.6252	-10.44	0.6981	0.7788	11.56
105	0.6075	-10.52	0.6789	0.7580	11.66
106	0.5903	-10.60	0.6603	0.7379	11.75
107	0.5738	-10.66	0.6423	0.7184	11.84
108	0.5577	-10.75	0.6248	0.6994	11.94
109	0.5422	-10.81	0.6079	0.6811	12.03
110	0.5272	-10.88	0.5916	0.6633	12.12
111	0.5126	-10.96	0.5757	0.6460	12.21
112	0.4985	-11.04	0.5604	0.6293	12.30
113	0.4849	-11.10	0.5455	0.6131	12.39
114	0.4717	-11.17	0.5310	0.5973	12.48
115	0.4589	-11.24	0.5170	0.5820	12.57
116	0.4465	-11.31	0.5035	0.5672	12.66
117	0.4345	-11.38	0.4903	0.5528	12.75
118	0.4228	-11.46	0.4775	0.5389	12.84

HONEYWELL

R-T CONVERSION TABLE

Part No. : 175-103LAE-301

R25 : 10 k-ohm Tolerance is 3%

B25/85 : 3750 K Tolerance is 3%

T(?)	R min.		R nom.	R max.	
	k-ohm	%		k-ohm	k-ohm
119	0.4115	-11.54	0.4652	0.5253	12.93
120	0.4006	-11.60	0.4532	0.5122	13.02
121	0.3900	-11.67	0.4415	0.4994	13.11
122	0.3797	-11.74	0.4302	0.4870	13.20
123	0.3698	-11.80	0.4193	0.4750	13.28
124	0.3601	-11.88	0.4086	0.4633	13.37
125	0.3507	-11.95	0.3983	0.4519	13.46
126	0.3416	-12.02	0.3883	0.4409	13.55
127	0.3328	-12.08	0.3785	0.4302	13.63
128	0.3243	-12.14	0.3691	0.4197	13.72
129	0.3160	-12.20	0.3599	0.4096	13.81
130	0.3079	-12.28	0.3510	0.3998	13.89
131	0.3001	-12.34	0.3424	0.3902	13.98
132	0.2925	-12.41	0.3339	0.3809	14.06
133	0.2852	-12.46	0.3258	0.3719	14.15
134	0.2780	-12.54	0.3178	0.3631	14.23
135	0.2711	-12.59	0.3101	0.3545	14.32
136	0.2643	-12.67	0.3026	0.3462	14.40
137	0.2578	-12.72	0.2954	0.3381	14.48
138	0.2514	-12.79	0.2883	0.3303	14.57
139	0.2452	-12.86	0.2814	0.3226	14.65
140	0.2392	-12.92	0.2747	0.3152	14.73
141	0.2334	-12.97	0.2682	0.3079	14.82
142	0.2277	-13.05	0.2619	0.3009	14.90
143	0.2222	-13.11	0.2557	0.2940	14.98
144	0.2168	-13.19	0.2497	0.2873	15.06
145	0.2116	-13.24	0.2439	0.2808	15.14
146	0.2066	-13.28	0.2382	0.2745	15.22
147	0.2017	-13.33	0.2327	0.2684	15.31
148	0.1969	-13.40	0.2274	0.2624	15.39
149	0.1922	-13.48	0.2221	0.2565	15.47
150	0.1877	-13.53	0.2171	0.2508	15.55