



NTC thermistors for temperature measurement

Leaded NTCs,
lead spacing 5 mm

Series/Type: **B57164**
Date: March 2006

B57164

K164

Dimensional drawing

- ## Features

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TNT0389-G-E

* May be free of lacquer

Dimensions in mm

Approx. weight 0.4 g

General technical data

Electrical specification and ordering codes

+ = Resistance tolerance
J = $\pm 5\%$
K = $\pm 10\%$

Temperature measurement
B57164
Leaded NTCs, lead spacing 5 mm
K164

R_{25} Ω	No. of R/T characteristic	$B_{25/100}$ K	Ordering code
330	1306	3450 $\pm 3\%$	B57164K0331+000
470	1306	3450 $\pm 3\%$	B57164K0471+000
1 k	1011	3730 $\pm 3\%$	B57164K0102+000
1.5 k	1013	3900 $\pm 3\%$	B57164K0152+000
2.2 k	1013	3900 $\pm 3\%$	B57164K0222+000
3.3 k	4001	3950 $\pm 3\%$	B57164K0332+000
4.7 k	4001	3950 $\pm 3\%$	B57164K0472+000
6.8 k	2903	4200 $\pm 3\%$	B57164K0682+000
10 k	2904	4300 $\pm 3\%$	B57164K0103+000
15 k	1014	4250 $\pm 3\%$	B57164K0153+000
22 k	1012	4300 $\pm 3\%$	B57164K0223+000
33 k	1012	4300 $\pm 3\%$	B57164K0333+000
47 k	4003	4450 $\pm 3\%$	B57164K0473+000
68 k	2005	4600 $\pm 3\%$	B57164K0683+000
100 k	2005	4600 $\pm 3\%$	B57164K0104+000
150 k	2005	4600 $\pm 3\%$	B57164K0154+000
220 k	2007	4830 $\pm 3\%$	B57164K0224+000
330 k	2006	5000 $\pm 3\%$	B57164K0334+000
470 k	2006	5000 $\pm 3\%$	B57164K0474+000

+ = Resistance tolerance

J = $\pm 5\%$

K = $\pm 10\%$

Reliability data

Test	Standard	Test conditions	$\Delta R_{25}/R_{25}$ (typical)	Remarks
Storage in dry heat	IEC 60068-2-2	Storage at upper category temperature T: 125 °C t: 1000 h	< 3%	No visible damage
Storage in damp heat, steady state	IEC 60068-2-78	Temperature of air: 40 °C Relative humidity of air: 93% Duration: 21 days	< 3%	No visible damage
Rapid temperature cycling	IEC 60068-2-14	Lower test temperature: -55 °C Upper test temperature: 125 °C Number of cycles: 100	< 3%	No visible damage
Endurance		P _{max} : 450 mW t: 1000 h	< 3%	No visible damage
Long-term stability (empirical value)		Temperature: 125 °C t: 10000 h	< 5%	No visible damage

R/T characteristics

	B57164K0150J000					
R/T No.	1203					
T (°C)	B _{25/100} = 2900 K, R ₂₅ = 15 Ω, T _R = 25 °C, ΔR _R /R _R = ± 5%					
	R _{noml} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	453.8	382.3	525.3	15.8	2.8	5.6
-50.0	344.5	293.3	395.7	14.9	2.7	5.4
-45.0	264.2	227.2	301.2	14.0	2.7	5.2
-40.0	204.8	177.8	231.7	13.2	2.6	5.0
-35.0	160.1	140.2	179.9	12.4	2.6	4.8
-30.0	126.3	111.6	141.0	11.7	2.5	4.7
-25.0	100.5	89.52	111.5	10.9	2.4	4.5
-20.0	80.64	72.38	88.89	10.2	2.4	4.3
-15.0	65.17	58.93	71.40	9.6	2.3	4.2
-10.0	53.06	48.32	57.80	8.9	2.2	4.0
-5.0	43.49	39.88	47.11	8.3	2.1	3.9
0.0	35.89	33.12	38.66	7.7	2.0	3.8
5.0	29.80	27.67	31.93	7.1	2.0	3.7
10.0	24.89	23.25	26.54	6.6	1.9	3.5
15.0	20.91	19.64	22.18	6.1	1.8	3.4
20.0	17.67	16.69	18.65	5.5	1.7	3.3
25.0	15.00	14.25	15.75	5.0	1.6	3.2
30.0	12.80	12.09	13.51	5.5	1.8	3.1
35.0	10.98	10.32	11.63	6.0	2.0	3.0
40.0	9.455	8.845	10.06	6.4	2.2	2.9
45.0	8.180	7.617	8.743	6.9	2.4	2.9
50.0	7.108	6.588	7.627	7.3	2.6	2.8
55.0	6.200	5.722	6.679	7.7	2.9	2.7
60.0	5.430	4.989	5.871	8.1	3.1	2.6
65.0	4.773	4.368	5.179	8.5	3.3	2.5
70.0	4.211	3.837	4.585	8.9	3.6	2.5
75.0	3.728	3.383	4.072	9.2	3.8	2.4
80.0	3.310	2.993	3.628	9.6	4.1	2.3
85.0	2.949	2.656	3.243	9.9	4.4	2.3
90.0	2.636	2.365	2.907	10.3	4.6	2.2
95.0	2.363	2.112	2.613	10.6	4.9	2.2
100.0	2.124	1.892	2.355	10.9	5.2	2.1
105.0	1.914	1.699	2.129	11.2	5.5	2.1
110.0	1.730	1.530	1.929	11.5	5.8	2.0
115.0	1.567	1.382	1.752	11.8	6.1	2.0
120.0	1.423	1.251	1.595	12.1	6.4	1.9
125.0	1.296	1.135	1.456	12.4	6.7	1.9

	B57164K0150K000					
R/T No.	1203					
T (°C)	$B_{25/100} = 2900 \text{ K}$, $R_{25} = 15 \text{ } \Omega$, $T_R = 25 \text{ } ^\circ\text{C}$, $\Delta R_R/R_R = \pm 10\%$					
	$R_{\text{nomL}}[\Omega]$	$R_{\text{minL}}[\Omega]$	$R_{\text{maxL}}[\Omega]$	$\Delta R_R/R_R[\pm\%]$	$\Delta T[\pm^\circ\text{C}]$	$\alpha \text{ } (\%/K)$
-55.0	453.8	359.6	547.9	20.8	3.7	5.6
-50.0	344.5	276.1	412.9	19.9	3.7	5.4
-45.0	264.2	214.0	314.4	19.0	3.6	5.2
-40.0	204.8	167.5	242.0	18.2	3.6	5.0
-35.0	160.1	132.2	187.9	17.4	3.6	4.8
-30.0	126.3	105.3	147.4	16.7	3.6	4.7
-25.0	100.5	84.49	116.5	15.9	3.5	4.5
-20.0	80.64	68.35	92.92	15.2	3.5	4.3
-15.0	65.17	55.67	74.66	14.6	3.5	4.2
-10.0	53.06	45.67	60.46	13.9	3.4	4.0
-5.0	43.49	37.70	49.28	13.3	3.4	3.9
0.0	35.89	31.33	40.46	12.7	3.4	3.8
5.0	29.80	26.18	33.42	12.1	3.3	3.7
10.0	24.89	22.01	27.78	11.6	3.3	3.5
15.0	20.91	18.60	23.23	11.1	3.2	3.4
20.0	17.67	15.80	19.53	10.5	3.2	3.3
25.0	15.00	13.50	16.50	10.0	3.1	3.2
30.0	12.80	11.45	14.15	10.5	3.4	3.1
35.0	10.98	9.769	12.18	11.0	3.6	3.0
40.0	9.455	8.372	10.54	11.4	3.9	2.9
45.0	8.180	7.208	9.152	11.9	4.2	2.9
50.0	7.108	6.233	7.982	12.3	4.4	2.8
55.0	6.200	5.412	6.989	12.7	4.7	2.7
60.0	5.430	4.718	6.142	13.1	5.0	2.6
65.0	4.773	4.129	5.418	13.5	5.3	2.5
70.0	4.211	3.627	4.795	13.9	5.6	2.5
75.0	3.728	3.197	4.258	14.2	5.9	2.4
80.0	3.310	2.827	3.794	14.6	6.2	2.3
85.0	2.949	2.509	3.390	14.9	6.6	2.3
90.0	2.636	2.233	3.038	15.3	6.9	2.2
95.0	2.363	1.994	2.731	15.6	7.2	2.2
100.0	2.124	1.786	2.461	15.9	7.6	2.1
105.0	1.914	1.603	2.224	16.2	7.9	2.1
110.0	1.730	1.444	2.015	16.5	8.3	2.0
115.0	1.567	1.304	1.831	16.8	8.6	2.0
120.0	1.423	1.180	1.667	17.1	9.0	1.9
125.0	1.296	1.070	1.521	17.4	9.4	1.9

Temperature measurement
B57164
Leaded NTCs, lead spacing 5 mm
K164

	B57164K0220J000					
R/T No.	1203					
T (°C)	B _{25/100} = 2900 K, R ₂₅ = 22 Ω, T _R = 25 °C, ΔR _R /R _R = ± 5%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	665.5	560.7	770.4	15.8	2.8	5.6
-50.0	505.2	430.2	580.3	14.9	2.7	5.4
-45.0	387.5	333.2	441.7	14.0	2.7	5.2
-40.0	300.3	260.7	339.9	13.2	2.6	5.0
-35.0	234.8	205.7	263.9	12.4	2.6	4.8
-30.0	185.3	163.7	206.9	11.7	2.5	4.7
-25.0	147.4	131.3	163.5	10.9	2.4	4.5
-20.0	118.3	106.2	130.4	10.2	2.4	4.3
-15.0	95.58	86.43	104.7	9.6	2.3	4.2
-10.0	77.83	70.88	84.78	8.9	2.2	4.0
-5.0	63.79	58.49	69.09	8.3	2.1	3.9
0.0	52.64	48.58	56.71	7.7	2.0	3.8
5.0	43.71	40.58	46.83	7.1	2.0	3.7
10.0	36.51	34.10	38.92	6.6	1.9	3.5
15.0	30.67	28.81	32.53	6.1	1.8	3.4
20.0	25.91	24.47	27.35	5.5	1.7	3.3
25.0	22.00	20.90	23.10	5.0	1.6	3.2
30.0	18.77	17.74	19.81	5.5	1.8	3.1
35.0	16.10	15.13	17.06	6.0	2.0	3.0
40.0	13.87	12.97	14.76	6.4	2.2	2.9
45.0	12.00	11.17	12.82	6.9	2.4	2.9
50.0	10.42	9.663	11.19	7.3	2.6	2.8
55.0	9.094	8.392	9.796	7.7	2.9	2.7
60.0	7.964	7.318	8.611	8.1	3.1	2.6
65.0	7.001	6.406	7.596	8.5	3.3	2.5
70.0	6.176	5.628	6.724	8.9	3.6	2.5
75.0	5.467	4.962	5.972	9.2	3.8	2.4
80.0	4.855	4.389	5.321	9.6	4.1	2.3
85.0	4.326	3.896	4.756	9.9	4.4	2.3
90.0	3.866	3.469	4.263	10.3	4.6	2.2
95.0	3.465	3.098	3.832	10.6	4.9	2.2
100.0	3.114	2.775	3.454	10.9	5.2	2.1
105.0	2.807	2.492	3.122	11.2	5.5	2.1
110.0	2.537	2.244	2.829	11.5	5.8	2.0
115.0	2.298	2.027	2.570	11.8	6.1	2.0
120.0	2.087	1.835	2.340	12.1	6.4	1.9
125.0	1.900	1.665	2.135	12.4	6.7	1.9

	B57164K0220K000					
R/T No.	1203					
T (°C)	$B_{25/100} = 2900 \text{ K}$, $R_{25} = 22 \text{ } \Omega$, $T_R = 25 \text{ } ^\circ\text{C}$, $\Delta R_R/R_R = \pm 10\%$					
	$R_{\text{nomL}}[\Omega]$	$R_{\text{minL}}[\Omega]$	$R_{\text{maxL}}[\Omega]$	$\Delta R_R/R_R[\pm\%]$	$\Delta T[\pm^\circ\text{C}]$	$\alpha \text{ } (\%/K)$
-55.0	665.5	527.4	803.6	20.8	3.7	5.6
-50.0	505.2	404.9	605.6	19.9	3.7	5.4
-45.0	387.5	313.8	461.1	19.0	3.6	5.2
-40.0	300.3	245.7	354.9	18.2	3.6	5.0
-35.0	234.8	193.9	275.6	17.4	3.6	4.8
-30.0	185.3	154.4	216.1	16.7	3.6	4.7
-25.0	147.4	123.9	170.9	15.9	3.5	4.5
-20.0	118.3	100.2	136.3	15.2	3.5	4.3
-15.0	95.58	81.65	109.5	14.6	3.5	4.2
-10.0	77.83	66.98	88.67	13.9	3.4	4.0
-5.0	63.79	55.30	72.28	13.3	3.4	3.9
0.0	52.64	45.95	59.34	12.7	3.4	3.8
5.0	43.71	38.40	49.02	12.1	3.3	3.7
10.0	36.51	32.28	40.75	11.6	3.3	3.5
15.0	30.67	27.28	34.06	11.1	3.2	3.4
20.0	25.91	23.18	28.64	10.5	3.2	3.3
25.0	22.00	19.80	24.20	10.0	3.1	3.2
30.0	18.77	16.80	20.75	10.5	3.4	3.1
35.0	16.10	14.33	17.87	11.0	3.6	3.0
40.0	13.87	12.28	15.45	11.4	3.9	2.9
45.0	12.00	10.57	13.42	11.9	4.2	2.9
50.0	10.42	9.142	11.71	12.3	4.4	2.8
55.0	9.094	7.937	10.25	12.7	4.7	2.7
60.0	7.964	6.920	9.009	13.1	5.0	2.6
65.0	7.001	6.056	7.946	13.5	5.3	2.5
70.0	6.176	5.319	7.033	13.9	5.6	2.5
75.0	5.467	4.689	6.246	14.2	5.9	2.4
80.0	4.855	4.147	5.564	14.6	6.2	2.3
85.0	4.326	3.680	4.972	14.9	6.6	2.3
90.0	3.866	3.275	4.456	15.3	6.9	2.2
95.0	3.465	2.925	4.006	15.6	7.2	2.2
100.0	3.114	2.619	3.610	15.9	7.6	2.1
105.0	2.807	2.352	3.263	16.2	7.9	2.1
110.0	2.537	2.118	2.956	16.5	8.3	2.0
115.0	2.298	1.912	2.685	16.8	8.6	2.0
120.0	2.087	1.730	2.444	17.1	9.0	1.9
125.0	1.900	1.570	2.230	17.4	9.4	1.9

Temperature measurement
B57164
Leaded NTCs, lead spacing 5 mm
K164

B57164K0330J000						
R/T No.	1203					
T (°C)	B _{25/100} = 2900 K, R ₂₅ = 33 Ω, T _R = 25 °C, ΔR _R /R _R = ± 5%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	998.3	841.1	1156	15.8	2.8	5.6
-50.0	757.9	645.3	870.5	14.9	2.7	5.4
-45.0	581.2	499.8	662.6	14.0	2.7	5.2
-40.0	450.5	391.1	509.8	13.2	2.6	5.0
-35.0	352.2	308.5	395.8	12.4	2.6	4.8
-30.0	277.9	245.5	310.3	11.7	2.5	4.7
-25.0	221.1	196.9	245.3	10.9	2.4	4.5
-20.0	177.4	159.2	195.6	10.2	2.4	4.3
-15.0	143.4	129.6	157.1	9.6	2.3	4.2
-10.0	116.7	106.3	127.2	8.9	2.2	4.0
-5.0	95.68	87.73	103.6	8.3	2.1	3.9
0.0	78.96	72.87	85.06	7.7	2.0	3.8
5.0	65.56	60.87	70.25	7.1	2.0	3.7
10.0	54.77	51.16	58.38	6.6	1.9	3.5
15.0	46.01	43.22	48.80	6.1	1.8	3.4
20.0	38.86	36.71	41.02	5.5	1.7	3.3
25.0	33.00	31.35	34.65	5.0	1.6	3.2
30.0	28.16	26.60	29.72	5.5	1.8	3.1
35.0	24.15	22.70	25.59	6.0	2.0	3.0
40.0	20.80	19.46	22.14	6.4	2.2	2.9
45.0	18.00	16.76	19.24	6.9	2.4	2.9
50.0	15.64	14.49	16.78	7.3	2.6	2.8
55.0	13.64	12.59	14.69	7.7	2.9	2.7
60.0	11.95	10.98	12.92	8.1	3.1	2.6
65.0	10.50	9.609	11.39	8.5	3.3	2.5
70.0	9.264	8.442	10.09	8.9	3.6	2.5
75.0	8.201	7.443	8.958	9.2	3.8	2.4
80.0	7.283	6.584	7.982	9.6	4.1	2.3
85.0	6.489	5.844	7.134	9.9	4.4	2.3
90.0	5.799	5.203	6.394	10.3	4.6	2.2
95.0	5.198	4.647	5.748	10.6	4.9	2.2
100.0	4.672	4.162	5.182	10.9	5.2	2.1
105.0	4.211	3.738	4.683	11.2	5.5	2.1
110.0	3.805	3.367	4.244	11.5	5.8	2.0
115.0	3.448	3.040	3.855	11.8	6.1	2.0
120.0	3.131	2.752	3.510	12.1	6.4	1.9
125.0	2.850	2.497	3.203	12.4	6.7	1.9

	B57164K0330K000					
R/T No.	1203					
T (°C)	$B_{25/100} = 2900 \text{ K}$, $R_{25} = 33 \text{ } \Omega$, $T_R = 25 \text{ } ^\circ\text{C}$, $\Delta R_R/R_R = \pm 10\%$					
	$R_{\text{nomL}}[\Omega]$	$R_{\text{minL}}[\Omega]$	$R_{\text{maxL}}[\Omega]$	$\Delta R_R/R_R[\pm\%]$	$\Delta T[\pm^\circ\text{C}]$	$\alpha \text{ } (\%/K)$
-55.0	998.3	791.2	1205	20.8	3.7	5.6
-50.0	757.9	607.4	908.4	19.9	3.7	5.4
-45.0	581.2	470.8	691.6	19.0	3.6	5.2
-40.0	450.5	368.5	532.4	18.2	3.6	5.0
-35.0	352.2	290.9	413.4	17.4	3.6	4.8
-30.0	277.9	231.6	324.2	16.7	3.6	4.7
-25.0	221.1	185.9	256.3	15.9	3.5	4.5
-20.0	177.4	150.4	204.4	15.2	3.5	4.3
-15.0	143.4	122.5	164.3	14.6	3.5	4.2
-10.0	116.7	100.5	133.0	13.9	3.4	4.0
-5.0	95.68	82.94	108.4	13.3	3.4	3.9
0.0	78.96	68.92	89.01	12.7	3.4	3.8
5.0	65.56	57.60	73.52	12.1	3.3	3.7
10.0	54.77	48.42	61.12	11.6	3.3	3.5
15.0	46.01	40.92	51.10	11.1	3.2	3.4
20.0	38.86	34.77	42.96	10.5	3.2	3.3
25.0	33.00	29.70	36.30	10.0	3.1	3.2
30.0	28.16	25.20	31.13	10.5	3.4	3.1
35.0	24.15	21.49	26.80	11.0	3.6	3.0
40.0	20.80	18.42	23.18	11.4	3.9	2.9
45.0	18.00	15.86	20.14	11.9	4.2	2.9
50.0	15.64	13.71	17.56	12.3	4.4	2.8
55.0	13.64	11.91	15.38	12.7	4.7	2.7
60.0	11.95	10.38	13.51	13.1	5.0	2.6
65.0	10.50	9.084	11.92	13.5	5.3	2.5
70.0	9.264	7.978	10.55	13.9	5.6	2.5
75.0	8.201	7.033	9.368	14.2	5.9	2.4
80.0	7.283	6.220	8.346	14.6	6.2	2.3
85.0	6.489	5.520	7.458	14.9	6.6	2.3
90.0	5.799	4.913	6.684	15.3	6.9	2.2
95.0	5.198	4.387	6.008	15.6	7.2	2.2
100.0	4.672	3.928	5.415	15.9	7.6	2.1
105.0	4.211	3.528	4.894	16.2	7.9	2.1
110.0	3.805	3.176	4.434	16.5	8.3	2.0
115.0	3.448	2.868	4.027	16.8	8.6	2.0
120.0	3.131	2.596	3.667	17.1	9.0	1.9
125.0	2.850	2.355	3.346	17.4	9.4	1.9

	B57164K0470J000					
R/T No.	1302					
T (°C)	$B_{25/100} = 3000 \text{ K}$, $R_{25} = 47 \text{ } \Omega$, $T_R = 25 \text{ } ^\circ\text{C}$, $\Delta R_R/R_R = \pm 5\%$					
	$R_{\text{nom}}[\Omega]$	$R_{\text{min}}[\Omega]$	$R_{\text{max}}[\Omega]$	$\Delta R_R/R_R[\pm\%]$	$\Delta T[\pm^\circ\text{C}]$	$\alpha \text{ } (\%/K)$
-55.0	1584	1329	1839	16.1	2.7	5.9
-50.0	1187	1006	1367	15.2	2.7	5.7
-45.0	900.0	771.2	1029	14.3	2.6	5.4
-40.0	690.2	597.2	783.1	13.5	2.6	5.2
-35.0	534.9	467.2	602.6	12.7	2.5	5.0
-30.0	418.6	368.9	468.3	11.9	2.5	4.8
-25.0	330.7	293.9	367.5	11.1	2.4	4.6
-20.0	263.5	236.1	291.0	10.4	2.3	4.5
-15.0	211.7	191.1	232.3	9.7	2.3	4.3
-10.0	171.4	155.9	187.0	9.1	2.2	4.2
-5.0	139.8	128.0	151.6	8.4	2.1	4.0
0.0	114.8	105.8	123.8	7.8	2.0	3.9
5.0	94.91	88.06	101.8	7.2	1.9	3.7
10.0	78.94	73.70	84.19	6.6	1.8	3.6
15.0	66.05	62.02	70.08	6.1	1.7	3.5
20.0	55.57	52.48	58.66	5.6	1.6	3.4
25.0	47.00	44.65	49.35	5.0	1.5	3.3
30.0	39.95	37.74	42.17	5.5	1.7	3.2
35.0	34.13	32.07	36.18	6.0	1.9	3.1
40.0	29.28	27.38	31.18	6.5	2.2	3.0
45.0	25.23	23.48	26.98	6.9	2.4	2.9
50.0	21.83	20.22	23.45	7.4	2.6	2.9
55.0	18.97	17.49	20.45	7.8	2.8	2.8
60.0	16.54	15.18	17.90	8.2	3.0	2.7
65.0	14.48	13.23	15.72	8.6	3.3	2.6
70.0	12.71	11.57	13.86	9.0	3.5	2.6
75.0	11.20	10.15	12.25	9.4	3.8	2.5
80.0	9.901	8.936	10.87	9.8	4.0	2.4
85.0	8.778	7.891	9.665	10.1	4.2	2.4
90.0	7.805	6.989	8.621	10.5	4.5	2.3
95.0	6.958	6.207	7.709	10.8	4.8	2.3
100.0	6.220	5.528	6.911	11.1	5.0	2.2
105.0	5.575	4.938	6.213	11.4	5.3	2.2
110.0	5.010	4.422	5.599	11.7	5.5	2.1
115.0	4.512	3.969	5.056	12.0	5.8	2.1
120.0	4.073	3.571	4.576	12.3	6.1	2.0
125.0	3.685	3.219	4.150	12.6	6.4	2.0

	B57164K0470K000					
R/T No.	1302					
T (°C)	$B_{25/100} = 3000 \text{ K}$, $R_{25} = 47 \text{ } \Omega$, $T_R = 25 \text{ } ^\circ\text{C}$, $\Delta R_R/R_R = \pm 10\%$					
	$R_{\text{nomL}}[\Omega]$	$R_{\text{minL}}[\Omega]$	$R_{\text{maxL}}[\Omega]$	$\Delta R_R/R_R[\pm\%]$	$\Delta T[\pm^\circ\text{C}]$	$\alpha (\%/K)$
-55.0	1584	1249	1918	21.1	3.6	5.9
-50.0	1187	947.1	1427	20.2	3.6	5.7
-45.0	900.0	726.2	1074	19.3	3.6	5.4
-40.0	690.2	562.7	817.6	18.5	3.5	5.2
-35.0	534.9	440.4	629.3	17.7	3.5	5.0
-30.0	418.6	348.0	489.3	16.9	3.5	4.8
-25.0	330.7	277.3	384.0	16.1	3.5	4.6
-20.0	263.5	222.9	304.1	15.4	3.5	4.5
-15.0	211.7	180.5	242.9	14.7	3.4	4.3
-10.0	171.4	147.3	195.5	14.1	3.4	4.2
-5.0	139.8	121.0	158.6	13.4	3.3	4.0
0.0	114.8	100.1	129.5	12.8	3.3	3.9
5.0	94.91	83.31	106.5	12.2	3.3	3.7
10.0	78.94	69.75	88.14	11.6	3.2	3.6
15.0	66.05	58.72	73.38	11.1	3.2	3.5
20.0	55.57	49.70	61.44	10.6	3.1	3.4
25.0	47.00	42.30	51.70	10.0	3.0	3.3
30.0	39.95	35.74	44.17	10.5	3.3	3.2
35.0	34.13	30.36	37.89	11.0	3.5	3.1
40.0	29.28	25.91	32.65	11.5	3.8	3.0
45.0	25.23	22.22	28.25	11.9	4.1	2.9
50.0	21.83	19.13	24.54	12.4	4.3	2.9
55.0	18.97	16.54	21.40	12.8	4.6	2.8
60.0	16.54	14.35	18.73	13.2	4.9	2.7
65.0	14.48	12.50	16.45	13.6	5.2	2.6
70.0	12.71	10.93	14.49	14.0	5.5	2.6
75.0	11.20	9.590	12.81	14.4	5.7	2.5
80.0	9.901	8.441	11.36	14.8	6.0	2.4
85.0	8.778	7.452	10.10	15.1	6.3	2.4
90.0	7.805	6.599	9.011	15.5	6.6	2.3
95.0	6.958	5.860	8.057	15.8	7.0	2.3
100.0	6.220	5.217	7.222	16.1	7.3	2.2
105.0	5.575	4.659	6.492	16.4	7.6	2.2
110.0	5.010	4.171	5.849	16.7	7.9	2.1
115.0	4.512	3.743	5.282	17.0	8.2	2.1
120.0	4.073	3.367	4.780	17.3	8.6	2.0
125.0	3.685	3.035	4.334	17.6	8.9	2.0

Temperature measurement
B57164
Leaded NTCs, lead spacing 5 mm
K164

B57164K0680J000						
R/T No.	1303					
T (°C)	B _{25/100} = 3050 K, R ₂₅ = 68 Ω, T _R = 25 °C, ΔR _R /R _R = ± 5%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
–55.0	2337	1956	2718	16.3	2.8	5.7
–50.0	1756	1486	2026	15.4	2.8	5.5
–45.0	1335	1142	1528	14.5	2.7	5.3
–40.0	1026	886.4	1166	13.6	2.6	5.2
–35.0	796.4	694.6	898.2	12.8	2.6	5.0
–30.0	624.1	549.2	698.9	12.0	2.5	4.8
–25.0	493.4	437.9	548.8	11.2	2.4	4.6
–20.0	393.3	352.0	434.6	10.5	2.3	4.5
–15.0	316.0	285.0	347.0	9.8	2.3	4.3
–10.0	255.8	232.4	279.1	9.1	2.2	4.2
–5.0	207.7	190.1	225.3	8.5	2.1	4.1
0.0	169.9	156.6	183.3	7.9	2.0	3.9
5.0	139.9	129.8	150.1	7.3	1.9	3.8
10.0	115.9	108.2	123.7	6.7	1.8	3.7
15.0	96.63	90.72	102.5	6.1	1.7	3.6
20.0	80.99	76.48	85.50	5.6	1.6	3.5
25.0	68.00	64.60	71.40	5.0	1.5	3.4
30.0	57.84	54.62	61.05	5.6	1.7	3.3
35.0	49.22	46.25	52.20	6.0	1.9	3.2
40.0	42.09	39.35	44.83	6.5	2.1	3.1
45.0	36.13	33.61	38.65	7.0	2.3	3.0
50.0	31.15	28.84	33.47	7.4	2.5	2.9
55.0	26.95	24.84	29.07	7.9	2.8	2.8
60.0	23.42	21.48	25.36	8.3	3.0	2.8
65.0	20.46	18.68	22.23	8.7	3.2	2.7
70.0	17.93	16.31	19.56	9.1	3.5	2.6
75.0	15.78	14.29	17.28	9.5	3.7	2.5
80.0	13.94	12.57	15.31	9.8	4.0	2.5
85.0	12.34	11.08	13.60	10.2	4.2	2.4
90.0	10.96	9.804	12.11	10.5	4.5	2.4
95.0	9.745	8.684	10.81	10.9	4.7	2.3
100.0	8.687	7.713	9.662	11.2	5.0	2.2
105.0	7.792	6.892	8.691	11.5	5.3	2.2
110.0	7.008	6.177	7.839	11.9	5.6	2.1
115.0	6.307	5.540	7.074	12.2	5.9	2.1
120.0	5.690	4.981	6.399	12.5	6.1	2.0
125.0	5.150	4.493	5.807	12.8	6.4	2.0

	B57164K0680K000					
R/T No.	1303					
T (°C)	$B_{25/100} = 3050 \text{ K}$, $R_{25} = 68 \text{ } \Omega$, $T_R = 25 \text{ } ^\circ\text{C}$, $\Delta R_R/R_R = \pm 10\%$					
	$R_{\text{nomL}}[\Omega]$	$R_{\text{minL}}[\Omega]$	$R_{\text{maxL}}[\Omega]$	$\Delta R_R/R_R[\pm\%]$	$\Delta T[\pm^\circ\text{C}]$	$\alpha (\%/K)$
-55.0	2337	1839	2834	21.3	3.7	5.7
-50.0	1756	1399	2114	20.4	3.7	5.5
-45.0	1335	1075	1595	19.5	3.6	5.3
-40.0	1026	835.1	1217	18.6	3.6	5.2
-35.0	796.4	654.8	938.1	17.8	3.6	5.0
-30.0	624.1	518.0	730.1	17.0	3.5	4.8
-25.0	493.4	413.3	573.4	16.2	3.5	4.6
-20.0	393.3	332.3	454.3	15.5	3.5	4.5
-15.0	316.0	269.2	362.8	14.8	3.4	4.3
-10.0	255.8	219.6	291.9	14.1	3.4	4.2
-5.0	207.7	179.7	235.7	13.5	3.3	4.1
0.0	169.9	148.1	191.8	12.9	3.3	3.9
5.0	139.9	122.8	157.1	12.3	3.2	3.8
10.0	115.9	102.4	129.5	11.7	3.2	3.7
15.0	96.63	85.89	107.4	11.1	3.1	3.6
20.0	80.99	72.43	89.55	10.6	3.0	3.5
25.0	68.00	61.20	74.80	10.0	3.0	3.4
30.0	57.84	51.73	63.94	10.6	3.2	3.3
35.0	49.22	43.79	54.66	11.0	3.5	3.2
40.0	42.09	37.24	46.94	11.5	3.7	3.1
45.0	36.13	31.80	40.46	12.0	4.0	3.0
50.0	31.15	27.28	35.02	12.4	4.3	2.9
55.0	26.95	23.49	30.42	12.9	4.5	2.8
60.0	23.42	20.31	26.53	13.3	4.8	2.8
65.0	20.46	17.66	23.25	13.7	5.1	2.7
70.0	17.93	15.41	20.46	14.1	5.4	2.6
75.0	15.78	13.50	18.07	14.5	5.7	2.5
80.0	13.94	11.87	16.01	14.8	6.0	2.5
85.0	12.34	10.47	14.22	15.2	6.3	2.4
90.0	10.96	9.256	12.66	15.5	6.6	2.4
95.0	9.745	8.197	11.29	15.9	6.9	2.3
100.0	8.687	7.278	10.10	16.2	7.3	2.2
105.0	7.792	6.503	9.081	16.5	7.6	2.2
110.0	7.008	5.826	8.189	16.9	7.9	2.1
115.0	6.307	5.224	7.390	17.2	8.3	2.1
120.0	5.690	4.696	6.684	17.5	8.6	2.0
125.0	5.150	4.236	6.065	17.8	9.0	2.0

Temperature measurement
B57164
Leaded NTCs, lead spacing 5 mm
K164

	B57164K0101J000					
R/T No.	1305					
T (°C)	B _{25/100} = 3200 K, R ₂₅ = 100 Ω, T _R = 25 °C, ΔR _R /R _R = ± 5%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	4213	3503	4923	16.9	2.7	6.1
-50.0	3113	2619	3607	15.9	2.7	5.9
-45.0	2327	1980	2675	14.9	2.6	5.7
-40.0	1759	1512	2006	14.0	2.6	5.5
-35.0	1344	1167	1521	13.2	2.5	5.3
-30.0	1037	908.7	1164	12.3	2.4	5.1
-25.0	810.1	716.6	903.5	11.5	2.3	4.9
-20.0	638.6	569.8	707.4	10.8	2.3	4.8
-15.0	503.6	453.1	554.2	10.0	2.2	4.6
-10.0	400.7	363.3	438.1	9.3	2.1	4.4
-5.0	322.2	294.3	350.0	8.7	2.0	4.3
0.0	261.0	240.1	281.8	8.0	1.9	4.2
5.0	212.6	196.9	228.3	7.4	1.8	4.0
10.0	174.4	162.6	186.2	6.8	1.7	3.9
15.0	144.2	135.3	153.0	6.2	1.6	3.8
20.0	119.9	113.2	126.6	5.6	1.5	3.7
25.0	100.00	95.00	105.0	5.0	1.4	3.5
30.0	84.18	79.49	88.88	5.6	1.6	3.4
35.0	71.08	66.75	75.41	6.1	1.8	3.3
40.0	60.32	56.34	64.29	6.6	2.0	3.2
45.0	51.42	47.78	55.06	7.1	2.2	3.1
50.0	44.04	40.72	47.36	7.5	2.5	3.1
55.0	37.82	34.80	40.85	8.0	2.7	3.0
60.0	32.64	29.88	35.39	8.4	2.9	2.9
65.0	28.33	25.82	30.84	8.9	3.2	2.8
70.0	24.70	22.41	26.99	9.3	3.4	2.7
75.0	21.57	19.49	23.66	9.7	3.6	2.7
80.0	18.91	17.00	20.81	10.1	3.9	2.6
85.0	16.65	14.91	18.39	10.4	4.1	2.5
90.0	14.71	13.12	16.30	10.8	4.4	2.5
95.0	13.02	11.57	14.48	11.2	4.7	2.4
100.0	11.56	10.23	12.89	11.5	4.9	2.3
105.0	10.30	9.079	11.52	11.9	5.2	2.3
110.0	9.204	8.082	10.33	12.2	5.5	2.2
115.0	8.244	7.212	9.276	12.5	5.8	2.2
120.0	7.403	6.454	8.353	12.8	6.0	2.1
125.0	6.670	5.794	7.546	13.1	6.3	2.1

	B57164K0101K000					
R/T No.	1305					
T (°C)	$B_{25/100} = 3200 \text{ K}$, $R_{25} = 100 \Omega$, $T_R = 25 \text{ °C}$, $\Delta R_R/R_R = \pm 10\%$					
	$R_{\text{nomL}}[\Omega]$	$R_{\text{minL}}[\Omega]$	$R_{\text{maxL}}[\Omega]$	$\Delta R_R/R_R[\pm\%]$	$\Delta T[\pm\text{°C}]$	$\alpha (\%/K)$
-55.0	4213	3292	5134	21.9	3.6	6.1
-50.0	3113	2463	3763	20.9	3.5	5.9
-45.0	2327	1863	2791	19.9	3.5	5.7
-40.0	1759	1425	2094	19.0	3.5	5.5
-35.0	1344	1100	1588	18.2	3.4	5.3
-30.0	1037	856.9	1216	17.3	3.4	5.1
-25.0	810.1	676.1	944.0	16.5	3.4	4.9
-20.0	638.6	537.8	739.3	15.8	3.3	4.8
-15.0	503.6	427.9	579.4	15.0	3.3	4.6
-10.0	400.7	343.2	458.1	14.3	3.2	4.4
-5.0	322.2	278.2	366.2	13.7	3.2	4.3
0.0	261.0	227.1	294.9	13.0	3.1	4.2
5.0	212.6	186.3	238.9	12.4	3.1	4.0
10.0	174.4	153.9	194.9	11.8	3.0	3.9
15.0	144.2	128.1	160.2	11.2	3.0	3.8
20.0	119.9	107.2	132.6	10.6	2.9	3.7
25.0	100.00	90.00	110.0	10.0	2.8	3.5
30.0	84.18	75.28	93.09	10.6	3.1	3.4
35.0	71.08	63.19	78.97	11.1	3.3	3.3
40.0	60.32	53.32	67.31	11.6	3.6	3.2
45.0	51.42	45.21	57.63	12.1	3.8	3.1
50.0	44.04	38.51	49.56	12.5	4.1	3.1
55.0	37.82	32.91	42.74	13.0	4.4	3.0
60.0	32.64	28.25	37.02	13.4	4.6	2.9
65.0	28.33	24.41	32.26	13.9	4.9	2.8
70.0	24.70	21.17	28.22	14.3	5.2	2.7
75.0	21.57	18.41	24.74	14.7	5.5	2.7
80.0	18.91	16.06	21.76	15.1	5.8	2.6
85.0	16.65	14.08	19.22	15.4	6.1	2.5
90.0	14.71	12.38	17.04	15.8	6.4	2.5
95.0	13.02	10.92	15.13	16.2	6.7	2.4
100.0	11.56	9.650	13.47	16.5	7.1	2.3
105.0	10.30	8.564	12.04	16.9	7.4	2.3
110.0	9.204	7.621	10.79	17.2	7.7	2.2
115.0	8.244	6.800	9.688	17.5	8.1	2.2
120.0	7.403	6.083	8.724	17.8	8.4	2.1
125.0	6.670	5.460	7.880	18.1	8.8	2.1

Temperature measurement
B57164
Leaded NTCs, lead spacing 5 mm
K164

	B57164K0151J000					
R/T No.	1305					
T (°C)	B _{25/100} = 3200 K, R ₂₅ = 150 Ω, T _R = 25 °C, ΔR _R /R _R = ± 5%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
–55.0	6320	5254	7385	16.9	2.7	6.1
–50.0	4669	3928	5410	15.9	2.7	5.9
–45.0	3491	2970	4012	14.9	2.6	5.7
–40.0	2639	2269	3009	14.0	2.6	5.5
–35.0	2016	1750	2281	13.2	2.5	5.3
–30.0	1555	1363	1747	12.3	2.4	5.1
–25.0	1215	1075	1355	11.5	2.3	4.9
–20.0	957.8	854.7	1061	10.8	2.3	4.8
–15.0	755.5	679.6	831.3	10.0	2.2	4.6
–10.0	601.0	544.9	657.1	9.3	2.1	4.4
–5.0	483.3	441.4	525.1	8.7	2.0	4.3
0.0	391.5	360.2	422.8	8.0	1.9	4.2
5.0	318.9	295.4	342.4	7.4	1.8	4.0
10.0	261.6	243.9	279.2	6.8	1.7	3.9
15.0	216.2	202.9	229.6	6.2	1.6	3.8
20.0	179.8	169.7	189.9	5.6	1.5	3.7
25.0	150.0	142.5	157.5	5.0	1.4	3.5
30.0	126.3	119.2	133.3	5.6	1.6	3.4
35.0	106.6	100.1	113.1	6.1	1.8	3.3
40.0	90.48	84.51	96.44	6.6	2.0	3.2
45.0	77.13	71.67	82.59	7.1	2.2	3.1
50.0	66.05	61.07	71.04	7.5	2.5	3.1
55.0	56.74	52.20	61.27	8.0	2.7	3.0
60.0	48.95	44.83	53.08	8.4	2.9	2.9
65.0	42.50	38.73	46.26	8.9	3.2	2.8
70.0	37.05	33.61	40.48	9.3	3.4	2.7
75.0	32.36	29.23	35.49	9.7	3.6	2.7
80.0	28.36	25.51	31.22	10.1	3.9	2.6
85.0	24.97	22.37	27.58	10.4	4.1	2.5
90.0	22.06	19.68	24.45	10.8	4.4	2.5
95.0	19.53	17.35	21.71	11.2	4.7	2.4
100.0	17.34	15.34	19.34	11.5	4.9	2.3
105.0	15.45	13.62	17.28	11.9	5.2	2.3
110.0	13.81	12.12	15.49	12.2	5.5	2.2
115.0	12.37	10.82	13.91	12.5	5.8	2.2
120.0	11.11	9.680	12.53	12.8	6.0	2.1
125.0	10.01	8.691	11.32	13.1	6.3	2.1

	B57164K0151K000					
R/T No.	1305					
T (°C)	$B_{25/100} = 3200 \text{ K}$, $R_{25} = 150 \text{ } \Omega$, $T_R = 25 \text{ } ^\circ\text{C}$, $\Delta R_R/R_R = \pm 10\%$					
	$R_{\text{nomL}}[\Omega]$	$R_{\text{minL}}[\Omega]$	$R_{\text{maxL}}[\Omega]$	$\Delta R_R/R_R[\pm\%]$	$\Delta T[\pm^\circ\text{C}]$	$\alpha (\%/K)$
-55.0	6320	4938	7701	21.9	3.6	6.1
-50.0	4669	3695	5644	20.9	3.5	5.9
-45.0	3491	2795	4187	19.9	3.5	5.7
-40.0	2639	2137	3141	19.0	3.5	5.5
-35.0	2016	1650	2382	18.2	3.4	5.3
-30.0	1555	1285	1824	17.3	3.4	5.1
-25.0	1215	1014	1416	16.5	3.4	4.9
-20.0	957.8	806.8	1109	15.8	3.3	4.8
-15.0	755.5	641.8	869.1	15.0	3.3	4.6
-10.0	601.0	514.9	687.1	14.3	3.2	4.4
-5.0	483.3	417.3	549.2	13.7	3.2	4.3
0.0	391.5	340.6	442.3	13.0	3.1	4.2
5.0	318.9	279.5	358.3	12.4	3.1	4.0
10.0	261.6	230.8	292.3	11.8	3.0	3.9
15.0	216.2	192.1	240.4	11.2	3.0	3.8
20.0	179.8	160.7	198.9	10.6	2.9	3.7
25.0	150.0	135.0	165.0	10.0	2.8	3.5
30.0	126.3	112.9	139.6	10.6	3.1	3.4
35.0	106.6	94.79	118.4	11.1	3.3	3.3
40.0	90.48	79.99	101.0	11.6	3.6	3.2
45.0	77.13	67.82	86.44	12.1	3.8	3.1
50.0	66.05	57.77	74.34	12.5	4.1	3.1
55.0	56.74	49.36	64.11	13.0	4.4	3.0
60.0	48.95	42.38	55.53	13.4	4.6	2.9
65.0	42.50	36.61	48.39	13.9	4.9	2.8
70.0	37.05	31.76	42.33	14.3	5.2	2.7
75.0	32.36	27.61	37.11	14.7	5.5	2.7
80.0	28.36	24.09	32.63	15.1	5.8	2.6
85.0	24.97	21.12	28.83	15.4	6.1	2.5
90.0	22.06	18.57	25.55	15.8	6.4	2.5
95.0	19.53	16.37	22.69	16.2	6.7	2.4
100.0	17.34	14.48	20.21	16.5	7.1	2.3
105.0	15.45	12.85	18.06	16.9	7.4	2.3
110.0	13.81	11.43	16.18	17.2	7.7	2.2
115.0	12.37	10.20	14.53	17.5	8.1	2.2
120.0	11.11	9.125	13.09	17.8	8.4	2.1
125.0	10.01	8.190	11.82	18.1	8.8	2.1

Temperature measurement
B57164
Leaded NTCs, lead spacing 5 mm
K164

	B57164K0221J000					
R/T No.	1305					
T (°C)	B _{25/100} = 3200 K, R ₂₅ = 220 Ω, T _R = 25 °C, ΔR _R /R _R = ± 5%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	9269	7706	10831	16.9	2.7	6.1
-50.0	6848	5761	7935	15.9	2.7	5.9
-45.0	5120	4356	5884	14.9	2.6	5.7
-40.0	3870	3327	4413	14.0	2.6	5.5
-35.0	2956	2567	3345	13.2	2.5	5.3
-30.0	2280	1999	2562	12.3	2.4	5.1
-25.0	1782	1576	1988	11.5	2.3	4.9
-20.0	1405	1253	1556	10.8	2.3	4.8
-15.0	1108	996.8	1219	10.0	2.2	4.6
-10.0	881.5	799.2	963.7	9.3	2.1	4.4
-5.0	708.8	647.5	770.1	8.7	2.0	4.3
0.0	574.1	528.2	620.1	8.0	1.9	4.2
5.0	467.7	433.3	502.2	7.4	1.8	4.0
10.0	383.6	357.7	409.6	6.8	1.7	3.9
15.0	317.1	297.6	336.7	6.2	1.6	3.8
20.0	263.7	249.0	278.5	5.6	1.5	3.7
25.0	220.0	209.0	231.0	5.0	1.4	3.5
30.0	185.2	174.9	195.5	5.6	1.6	3.4
35.0	156.4	146.8	165.9	6.1	1.8	3.3
40.0	132.7	123.9	141.4	6.6	2.0	3.2
45.0	113.1	105.1	121.1	7.1	2.2	3.1
50.0	96.88	89.57	104.2	7.5	2.5	3.1
55.0	83.21	76.56	89.86	8.0	2.7	3.0
60.0	71.80	65.74	77.85	8.4	2.9	2.9
65.0	62.33	56.81	67.85	8.9	3.2	2.8
70.0	54.33	49.30	59.37	9.3	3.4	2.7
75.0	47.46	42.87	52.05	9.7	3.6	2.7
80.0	41.60	37.41	45.78	10.1	3.9	2.6
85.0	36.63	32.80	40.45	10.4	4.1	2.5
90.0	32.36	28.86	35.86	10.8	4.4	2.5
95.0	28.65	25.45	31.85	11.2	4.7	2.4
100.0	25.43	22.50	28.36	11.5	4.9	2.3
105.0	22.66	19.97	25.35	11.9	5.2	2.3
110.0	20.25	17.78	22.72	12.2	5.5	2.2
115.0	18.14	15.87	20.41	12.5	5.8	2.2
120.0	16.29	14.20	18.38	12.8	6.0	2.1
125.0	14.67	12.75	16.60	13.1	6.3	2.1

	B57164K0221K000					
R/T No.	1305					
T (°C)	$B_{25/100} = 3200 \text{ K}$, $R_{25} = 220 \text{ } \Omega$, $T_R = 25 \text{ } ^\circ\text{C}$, $\Delta R_R/R_R = \pm 10\%$					
	$R_{\text{nomL}}[\Omega]$	$R_{\text{minL}}[\Omega]$	$R_{\text{maxL}}[\Omega]$	$\Delta R_R/R_R[\pm\%]$	$\Delta T[\pm^\circ\text{C}]$	$\alpha \text{ } (\%/K)$
-55.0	9269	7243	11295	21.9	3.6	6.1
-50.0	6848	5419	8278	20.9	3.5	5.9
-45.0	5120	4100	6140	19.9	3.5	5.7
-40.0	3870	3134	4607	19.0	3.5	5.5
-35.0	2956	2419	3493	18.2	3.4	5.3
-30.0	2280	1885	2676	17.3	3.4	5.1
-25.0	1782	1487	2077	16.5	3.4	4.9
-20.0	1405	1183	1626	15.8	3.3	4.8
-15.0	1108	941.4	1275	15.0	3.3	4.6
-10.0	881.5	755.1	1008	14.3	3.2	4.4
-5.0	708.8	612.0	805.5	13.7	3.2	4.3
0.0	574.1	499.5	648.8	13.0	3.1	4.2
5.0	467.7	409.9	525.6	12.4	3.1	4.0
10.0	383.6	338.5	428.7	11.8	3.0	3.9
15.0	317.1	281.7	352.5	11.2	3.0	3.8
20.0	263.7	235.8	291.7	10.6	2.9	3.7
25.0	220.0	198.0	242.0	10.0	2.8	3.5
30.0	185.2	165.6	204.8	10.6	3.1	3.4
35.0	156.4	139.0	173.7	11.1	3.3	3.3
40.0	132.7	117.3	148.1	11.6	3.6	3.2
45.0	113.1	99.46	126.8	12.1	3.8	3.1
50.0	96.88	84.73	109.0	12.5	4.1	3.1
55.0	83.21	72.40	94.02	13.0	4.4	3.0
60.0	71.80	62.15	81.44	13.4	4.6	2.9
65.0	62.33	53.69	70.97	13.9	4.9	2.8
70.0	54.33	46.58	62.09	14.3	5.2	2.7
75.0	47.46	40.50	54.42	14.7	5.5	2.7
80.0	41.60	35.33	47.86	15.1	5.8	2.6
85.0	36.63	30.97	42.29	15.4	6.1	2.5
90.0	32.36	27.24	37.48	15.8	6.4	2.5
95.0	28.65	24.01	33.28	16.2	6.7	2.4
100.0	25.43	21.23	29.63	16.5	7.1	2.3
105.0	22.66	18.84	26.48	16.9	7.4	2.3
110.0	20.25	16.77	23.73	17.2	7.7	2.2
115.0	18.14	14.96	21.31	17.5	8.1	2.2
120.0	16.29	13.38	19.19	17.8	8.4	2.1
125.0	14.67	12.01	17.34	18.1	8.8	2.1

Temperature measurement
B57164
Leaded NTCs, lead spacing 5 mm
K164

	B57164K0331J000					
R/T No.	1306					
T (°C)	B _{25/100} = 3450 K, R ₂₅ = 330 Ω, T _R = 25 °C, ΔR _R /R _R = ± 5%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	16479	13549	19409	17.8	2.8	6.3
-50.0	12091	10070	14113	16.7	2.7	6.1
-45.0	8969	7561	10378	15.7	2.7	5.9
-40.0	6722	5732	7712	14.7	2.6	5.7
-35.0	5087	4385	5789	13.8	2.5	5.5
-30.0	3886	3384	4387	12.9	2.4	5.3
-25.0	2993	2633	3354	12.0	2.3	5.1
-20.0	2326	2065	2587	11.2	2.3	5.0
-15.0	1821	1631	2011	10.4	2.2	4.8
-10.0	1437	1298	1576	9.7	2.1	4.7
-5.0	1142	1040	1244	8.9	2.0	4.5
0.0	914.3	839.0	989.5	8.2	1.9	4.4
5.0	736.4	680.8	792.0	7.5	1.8	4.3
10.0	597.2	556.1	638.4	6.9	1.7	4.1
15.0	487.1	456.7	517.6	6.3	1.6	4.0
20.0	399.8	377.3	422.4	5.6	1.4	3.9
25.0	330.0	313.5	346.5	5.0	1.3	3.8
30.0	273.8	258.5	289.2	5.6	1.5	3.7
35.0	228.4	214.3	242.5	6.2	1.7	3.6
40.0	191.5	178.7	204.4	6.7	1.9	3.5
45.0	161.4	149.7	173.0	7.2	2.1	3.4
50.0	136.6	126.0	147.2	7.7	2.4	3.3
55.0	116.1	106.6	125.7	8.2	2.6	3.2
60.0	99.20	90.57	107.8	8.7	2.8	3.1
65.0	85.07	77.28	92.86	9.2	3.0	3.0
70.0	73.25	66.22	80.28	9.6	3.2	3.0
75.0	63.32	56.97	69.68	10.0	3.5	2.9
80.0	54.94	49.19	60.68	10.5	3.7	2.8
85.0	47.84	42.65	53.04	10.9	4.0	2.7
90.0	41.81	37.10	46.52	11.3	4.2	2.7
95.0	36.66	32.39	40.93	11.7	4.5	2.6
100.0	32.25	28.37	36.12	12.0	4.7	2.5
105.0	28.46	24.93	31.98	12.4	5.0	2.5
110.0	25.19	21.98	28.40	12.8	5.3	2.4
115.0	22.36	19.43	25.29	13.1	5.6	2.4
120.0	19.91	17.23	22.58	13.4	5.8	2.3
125.0	17.77	15.32	20.22	13.8	6.1	2.2

	B57164K0331K000					
R/T No.	1306					
T (°C)	$B_{25/100} = 3450 \text{ K}$, $R_{25} = 330 \text{ } \Omega$, $T_R = 25 \text{ } ^\circ\text{C}$, $\Delta R_R/R_R = \pm 10\%$					
	$R_{\text{nom}}[\Omega]$	$R_{\text{min}}[\Omega]$	$R_{\text{max}}[\Omega]$	$\Delta R_R/R_R[\pm\%]$	$\Delta T[\pm^\circ\text{C}]$	$\alpha (\%/K)$
-55.0	16479	12725	20232	22.8	3.6	6.3
-50.0	12091	9465	14717	21.7	3.6	6.1
-45.0	8969	7113	10826	20.7	3.5	5.9
-40.0	6722	5396	8048	19.7	3.5	5.7
-35.0	5087	4131	6044	18.8	3.4	5.5
-30.0	3886	3190	4581	17.9	3.4	5.3
-25.0	2993	2483	3503	17.0	3.3	5.1
-20.0	2326	1949	2704	16.2	3.3	5.0
-15.0	1821	1540	2102	15.4	3.2	4.8
-10.0	1437	1227	1648	14.7	3.1	4.7
-5.0	1142	983.0	1301	13.9	3.1	4.5
0.0	914.3	793.3	1035	13.2	3.0	4.4
5.0	736.4	644.0	828.8	12.5	2.9	4.3
10.0	597.2	526.2	668.2	11.9	2.9	4.1
15.0	487.1	432.3	542.0	11.3	2.8	4.0
20.0	399.8	357.3	442.4	10.6	2.7	3.9
25.0	330.0	297.0	363.0	10.0	2.6	3.8
30.0	273.8	244.8	302.9	10.6	2.9	3.7
35.0	228.4	202.9	254.0	11.2	3.1	3.6
40.0	191.5	169.1	214.0	11.7	3.4	3.5
45.0	161.4	141.6	181.1	12.2	3.6	3.4
50.0	136.6	119.2	154.0	12.7	3.9	3.3
55.0	116.1	100.8	131.5	13.2	4.1	3.2
60.0	99.20	85.61	112.8	13.7	4.4	3.1
65.0	85.07	73.03	97.12	14.2	4.7	3.0
70.0	73.25	62.55	83.95	14.6	4.9	3.0
75.0	63.32	53.80	72.84	15.0	5.2	2.9
80.0	54.94	46.45	63.43	15.5	5.5	2.8
85.0	47.84	40.25	55.44	15.9	5.8	2.7
90.0	41.81	35.01	48.61	16.3	6.1	2.7
95.0	36.66	30.56	42.76	16.7	6.4	2.6
100.0	32.25	26.76	37.74	17.0	6.7	2.5
105.0	28.46	23.51	33.41	17.4	7.0	2.5
110.0	25.19	20.72	29.66	17.8	7.4	2.4
115.0	22.36	18.31	26.41	18.1	7.7	2.4
120.0	19.91	16.24	23.58	18.4	8.0	2.3
125.0	17.77	14.44	21.11	18.8	8.4	2.2

Temperature measurement

B57164

Leaded NTCs, lead spacing 5 mm

K164

	B57164K0471J000					
R/T No.	1306					
T (°C)	B _{25/100} = 3450 K, R ₂₅ = 470 Ω, T _R = 25 °C, ΔR _R /R _R = ± 5%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	23470	19297	27642	17.8	2.8	6.3
-50.0	17221	14342	20100	16.7	2.7	6.1
-45.0	12774	10769	14780	15.7	2.7	5.9
-40.0	9574	8164	10984	14.7	2.6	5.7
-35.0	7246	6246	8245	13.8	2.5	5.5
-30.0	5534	4820	6248	12.9	2.4	5.3
-25.0	4263	3749	4776	12.0	2.3	5.1
-20.0	3313	2942	3685	11.2	2.3	5.0
-15.0	2594	2323	2864	10.4	2.2	4.8
-10.0	2047	1849	2245	9.7	2.1	4.7
-5.0	1627	1481	1772	8.9	2.0	4.5
0.0	1302	1195	1409	8.2	1.9	4.4
5.0	1049	969.7	1128	7.5	1.8	4.3
10.0	850.6	792.0	909.2	6.9	1.7	4.1
15.0	693.8	650.4	737.2	6.3	1.6	4.0
20.0	569.5	537.3	601.6	5.6	1.4	3.9
25.0	470.0	446.5	493.5	5.0	1.3	3.8
30.0	390.0	368.1	412.0	5.6	1.5	3.7
35.0	325.3	305.2	345.4	6.2	1.7	3.6
40.0	272.8	254.5	291.1	6.7	1.9	3.5
45.0	229.8	213.2	246.4	7.2	2.1	3.4
50.0	194.6	179.5	209.6	7.7	2.4	3.3
55.0	165.4	151.8	179.0	8.2	2.6	3.2
60.0	141.3	129.0	153.6	8.7	2.8	3.1
65.0	121.2	110.1	132.3	9.2	3.0	3.0
70.0	104.3	94.31	114.3	9.6	3.2	3.0
75.0	90.19	81.14	99.24	10.0	3.5	2.9
80.0	78.25	70.07	86.43	10.5	3.7	2.8
85.0	68.14	60.74	75.55	10.9	4.0	2.7
90.0	59.54	52.84	66.25	11.3	4.2	2.7
95.0	52.21	46.13	58.29	11.7	4.5	2.6
100.0	45.93	40.40	51.45	12.0	4.7	2.5
105.0	40.53	35.51	45.55	12.4	5.0	2.5
110.0	35.87	31.30	40.45	12.8	5.3	2.4
115.0	31.85	27.68	36.02	13.1	5.6	2.4
120.0	28.35	24.54	32.16	13.4	5.8	2.3
125.0	25.31	21.83	28.80	13.8	6.1	2.2

	B57164K0471K000					
R/T No.	1306					
T (°C)	$B_{25/100} = 3450 \text{ K}$, $R_{25} = 470 \text{ } \Omega$, $T_R = 25 \text{ } ^\circ\text{C}$, $\Delta R_R/R_R = \pm 10\%$					
	$R_{\text{nomL}}[\Omega]$	$R_{\text{minL}}[\Omega]$	$R_{\text{maxL}}[\Omega]$	$\Delta R_R/R_R[\pm\%]$	$\Delta T[\pm^\circ\text{C}]$	$\alpha \text{ } (\%/K)$
-55.0	23470	18123	28816	22.8	3.6	6.3
-50.0	17221	13481	20961	21.7	3.6	6.1
-45.0	12774	10130	15419	20.7	3.5	5.9
-40.0	9574	7685	11463	19.7	3.5	5.7
-35.0	7246	5884	8607	18.8	3.4	5.5
-30.0	5534	4543	6525	17.9	3.4	5.3
-25.0	4263	3536	4989	17.0	3.3	5.1
-20.0	3313	2776	3851	16.2	3.3	5.0
-15.0	2594	2194	2994	15.4	3.2	4.8
-10.0	2047	1747	2348	14.7	3.1	4.7
-5.0	1627	1400	1853	13.9	3.1	4.5
0.0	1302	1130	1474	13.2	3.0	4.4
5.0	1049	917.2	1180	12.5	2.9	4.3
10.0	850.6	749.5	951.7	11.9	2.9	4.1
15.0	693.8	615.7	771.9	11.3	2.8	4.0
20.0	569.5	508.9	630.1	10.6	2.7	3.9
25.0	470.0	423.0	517.0	10.0	2.6	3.8
30.0	390.0	348.6	431.5	10.6	2.9	3.7
35.0	325.3	289.0	361.7	11.2	3.1	3.6
40.0	272.8	240.8	304.8	11.7	3.4	3.5
45.0	229.8	201.7	257.9	12.2	3.6	3.4
50.0	194.6	169.8	219.3	12.7	3.9	3.3
55.0	165.4	143.5	187.3	13.2	4.1	3.2
60.0	141.3	121.9	160.6	13.7	4.4	3.1
65.0	121.2	104.0	138.3	14.2	4.7	3.0
70.0	104.3	89.09	119.6	14.6	4.9	3.0
75.0	90.19	76.63	103.7	15.0	5.2	2.9
80.0	78.25	66.15	90.34	15.5	5.5	2.8
85.0	68.14	57.33	78.95	15.9	5.8	2.7
90.0	59.54	49.86	69.23	16.3	6.1	2.7
95.0	52.21	43.52	60.91	16.7	6.4	2.6
100.0	45.93	38.11	53.75	17.0	6.7	2.5
105.0	40.53	33.48	47.58	17.4	7.0	2.5
110.0	35.87	29.50	42.24	17.8	7.4	2.4
115.0	31.85	26.08	37.61	18.1	7.7	2.4
120.0	28.35	23.12	33.58	18.4	8.0	2.3
125.0	25.31	20.56	30.06	18.8	8.4	2.2

Temperature measurement
B57164
Leaded NTCs, lead spacing 5 mm
K164

	B57164K0102J000					
R/T No.	1011					
T (°C)	B _{25/100} = 3730 K, R ₂₅ = 1000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 5%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	70014	56842	83186	18.8	2.7	6.9
-50.0	49906	41090	58721	17.7	2.7	6.6
-45.0	36015	30049	41981	16.6	2.6	6.4
-40.0	26296	22216	30375	15.5	2.5	6.2
-35.0	19411	16595	22227	14.5	2.4	6.0
-30.0	14479	12518	16439	13.5	2.3	5.8
-25.0	10903	9528	12278	12.6	2.3	5.6
-20.0	8292	7320	9264	11.7	2.2	5.4
-15.0	6359	5668	7050	10.9	2.1	5.2
-10.0	4920	4426	5415	10.0	2.0	5.1
-5.0	3828	3474	4182	9.2	1.9	4.9
0.0	3003	2748	3258	8.5	1.8	4.8
5.0	2377	2193	2562	7.7	1.7	4.6
10.0	1896	1762	2029	7.0	1.6	4.5
15.0	1521	1424	1617	6.4	1.5	4.3
20.0	1228	1158	1298	5.7	1.4	4.2
25.0	1000.0	950.0	1050	5.0	1.2	4.1
30.0	817.8	771.4	864.2	5.7	1.4	4.0
35.0	673.4	631.2	715.6	6.3	1.6	3.9
40.0	557.5	519.3	595.6	6.8	1.8	3.8
45.0	463.6	429.2	497.9	7.4	2.0	3.7
50.0	387.4	356.6	418.2	8.0	2.2	3.6
55.0	323.7	296.2	351.1	8.5	2.5	3.5
60.0	272.0	247.5	296.5	9.0	2.7	3.4
65.0	230.4	208.5	252.3	9.5	2.9	3.3
70.0	196.0	176.5	215.6	10.0	3.1	3.2
75.0	167.4	149.9	184.8	10.4	3.3	3.1
80.0	143.4	127.8	159.0	10.9	3.6	3.0
85.0	123.5	109.5	137.5	11.3	3.8	3.0
90.0	106.7	94.13	119.2	11.8	4.1	2.9
95.0	92.73	81.43	104.0	12.2	4.3	2.8
100.0	80.90	70.71	91.09	12.6	4.6	2.8
105.0	70.62	61.44	79.79	13.0	4.8	2.7
110.0	61.83	53.56	70.10	13.4	5.1	2.6
115.0	54.28	46.82	61.75	13.8	5.4	2.6
120.0	47.79	41.04	54.54	14.1	5.6	2.5
125.0	42.25	36.13	48.36	14.5	5.9	2.4

	B57164K0102K000					
R/T No.	1011					
T (°C)	$B_{25/100} = 3730 \text{ K}$, $R_{25} = 1000 \Omega$, $T_R = 25 \text{ °C}$, $\Delta R_R/R_R = \pm 10\%$					
	$R_{nomL}[\Omega]$	$R_{minL}[\Omega]$	$R_{maxL}[\Omega]$	$\Delta R_R/R_R[\pm\%]$	$\Delta T[\pm\text{°C}]$	$\alpha \text{ (}\%/\text{K)}$
–55.0	70014	53341	86686	23.8	3.5	6.9
–50.0	49906	38595	61216	22.7	3.4	6.6
–45.0	36015	28248	43782	21.6	3.4	6.4
–40.0	26296	20901	31690	20.5	3.3	6.2
–35.0	19411	15625	23197	19.5	3.3	6.0
–30.0	14479	11794	17163	18.5	3.2	5.8
–25.0	10903	8983	12823	17.6	3.2	5.6
–20.0	8292	6906	9679	16.7	3.1	5.4
–15.0	6359	5350	7368	15.9	3.0	5.2
–10.0	4920	4180	5661	15.0	3.0	5.1
–5.0	3828	3282	4373	14.2	2.9	4.9
0.0	3003	2598	3408	13.5	2.8	4.8
5.0	2377	2074	2680	12.7	2.8	4.6
10.0	1896	1668	2124	12.0	2.7	4.5
15.0	1521	1348	1693	11.4	2.6	4.3
20.0	1228	1097	1359	10.7	2.5	4.2
25.0	1000.0	900.0	1100	10.0	2.4	4.1
30.0	817.8	730.5	905.0	10.7	2.7	4.0
35.0	673.4	597.5	749.3	11.3	2.9	3.9
40.0	557.5	491.4	623.5	11.8	3.2	3.8
45.0	463.6	406.0	521.1	12.4	3.4	3.7
50.0	387.4	337.2	437.6	13.0	3.6	3.6
55.0	323.7	280.0	367.3	13.5	3.9	3.5
60.0	272.0	233.9	310.1	14.0	4.2	3.4
65.0	230.4	197.0	263.8	14.5	4.4	3.3
70.0	196.0	166.7	225.4	15.0	4.7	3.2
75.0	167.4	141.5	193.2	15.4	5.0	3.1
80.0	143.4	120.6	166.2	15.9	5.2	3.0
85.0	123.5	103.3	143.6	16.3	5.5	3.0
90.0	106.7	88.80	124.6	16.8	5.8	2.9
95.0	92.73	76.80	108.7	17.2	6.1	2.8
100.0	80.90	66.67	95.14	17.6	6.4	2.8
105.0	70.62	57.91	83.32	18.0	6.7	2.7
110.0	61.83	50.46	73.19	18.4	7.0	2.6
115.0	54.28	44.10	64.46	18.8	7.3	2.6
120.0	47.79	38.66	56.93	19.1	7.6	2.5
125.0	42.25	34.02	50.48	19.5	7.9	2.4

	B57164K0152J000					
R/T No.	1013					
T (°C)	$B_{25/100} = 3900 \text{ K}$, $R_{25} = 1500 \text{ } \Omega$, $T_R = 25 \text{ } ^\circ\text{C}$, $\Delta R_R/R_R = \pm 5\%$					
	$R_{\text{nom}}[\Omega]$	$R_{\text{min}}[\Omega]$	$R_{\text{max}}[\Omega]$	$\Delta R_R/R_R[\pm\%]$	$\Delta T[\pm^\circ\text{C}]$	$\alpha \text{ } (\%/K)$
-55.0	115930	93390	138460	19.4	2.8	6.9
-50.0	82407	67376	97437	18.2	2.7	6.7
-45.0	59260	49132	69387	17.1	2.6	6.5
-40.0	43083	36194	49972	16.0	2.5	6.3
-35.0	31648	26921	36375	14.9	2.5	6.1
-30.0	23478	20208	26747	13.9	2.4	5.9
-25.0	17572	15295	19849	13.0	2.3	5.7
-20.0	13281	11684	14878	12.0	2.2	5.5
-15.0	10115	8989	11241	11.1	2.1	5.4
-10.0	7772	6974	8570	10.3	2.0	5.2
-5.0	6015	5447	6583	9.4	1.9	5.0
0.0	4693	4287	5098	8.6	1.8	4.9
5.0	3685	3395	3975	7.9	1.7	4.8
10.0	2916	2708	3124	7.1	1.5	4.6
15.0	2321	2172	2470	6.4	1.4	4.5
20.0	1860	1754	1967	5.7	1.3	4.4
25.0	1500	1425	1575	5.0	1.2	4.3
30.0	1217	1147	1286	5.7	1.4	4.1
35.0	992.2	929.4	1055	6.3	1.6	4.0
40.0	813.8	757.4	870.2	6.9	1.8	3.9
45.0	670.9	620.5	721.3	7.5	2.0	3.8
50.0	556.0	511.0	601.0	8.1	2.2	3.7
55.0	463.0	423.0	503.0	8.6	2.4	3.6
60.0	387.4	351.8	422.9	9.2	2.6	3.5
65.0	325.6	294.0	357.2	9.7	2.8	3.4
70.0	274.9	246.8	302.9	10.2	3.0	3.3
75.0	233.0	208.1	257.9	10.7	3.3	3.3
80.0	198.4	176.2	220.5	11.2	3.5	3.2
85.0	169.5	149.8	189.2	11.6	3.7	3.1
90.0	145.4	127.9	163.0	12.1	4.0	3.0
95.0	125.2	109.6	140.9	12.5	4.2	3.0
100.0	108.2	94.21	122.2	12.9	4.5	2.9
105.0	93.84	81.31	106.4	13.4	4.7	2.8
110.0	81.64	70.41	92.87	13.8	5.0	2.8
115.0	71.26	61.18	81.35	14.1	5.3	2.7
120.0	62.39	53.32	71.46	14.5	5.5	2.6
125.0	54.80	46.63	62.97	14.9	5.8	2.6

	B57164K0152K000					
R/T No.	1013					
T (°C)	$B_{25/100} = 3900 \text{ K}$, $R_{25} = 1500 \Omega$, $T_R = 25 \text{ °C}$, $\Delta R_R/R_R = \pm 10\%$					
	$R_{\text{nomL}}[\Omega]$	$R_{\text{minL}}[\Omega]$	$R_{\text{maxL}}[\Omega]$	$\Delta R_R/R_R[\pm\%]$	$\Delta T[\pm\text{°C}]$	$\alpha (\%/K)$
-55.0	115930	87594	144260	24.4	3.5	6.9
-50.0	82407	63256	101560	23.2	3.5	6.7
-45.0	59260	46169	72350	22.1	3.4	6.5
-40.0	43083	34040	52126	21.0	3.3	6.3
-35.0	31648	25338	37958	19.9	3.3	6.1
-30.0	23478	19034	27921	18.9	3.2	5.9
-25.0	17572	14417	20727	18.0	3.1	5.7
-20.0	13281	11020	15542	17.0	3.1	5.5
-15.0	10115	8483	11747	16.1	3.0	5.4
-10.0	7772	6585	8959	15.3	2.9	5.2
-5.0	6015	5146	6883	14.4	2.9	5.0
0.0	4693	4052	5333	13.6	2.8	4.9
5.0	3685	3211	4160	12.9	2.7	4.8
10.0	2916	2562	3269	12.1	2.6	4.6
15.0	2321	2056	2586	11.4	2.5	4.5
20.0	1860	1661	2060	10.7	2.5	4.4
25.0	1500	1350	1650	10.0	2.4	4.3
30.0	1217	1086	1347	10.7	2.6	4.1
35.0	992.2	879.8	1105	11.3	2.8	4.0
40.0	813.8	716.7	910.9	11.9	3.0	3.9
45.0	670.9	586.9	754.9	12.5	3.3	3.8
50.0	556.0	483.2	628.8	13.1	3.5	3.7
55.0	463.0	399.8	526.1	13.6	3.8	3.6
60.0	387.4	332.5	442.3	14.2	4.0	3.5
65.0	325.6	277.8	373.4	14.7	4.3	3.4
70.0	274.9	233.1	316.6	15.2	4.5	3.3
75.0	233.0	196.5	269.6	15.7	4.8	3.3
80.0	198.4	166.3	230.4	16.2	5.1	3.2
85.0	169.5	141.3	197.7	16.6	5.4	3.1
90.0	145.4	120.6	170.3	17.1	5.6	3.0
95.0	125.2	103.3	147.2	17.5	5.9	3.0
100.0	108.2	88.80	127.6	17.9	6.2	2.9
105.0	93.84	76.62	111.1	18.4	6.5	2.8
110.0	81.64	66.33	96.95	18.8	6.8	2.8
115.0	71.26	57.62	84.91	19.1	7.1	2.7
120.0	62.39	50.20	74.58	19.5	7.4	2.6
125.0	54.80	43.89	65.71	19.9	7.7	2.6

Temperature measurement
B57164
Leaded NTCs, lead spacing 5 mm
K164

B57164K0222J000						
R/T No.	1013					
T (°C)	B _{25/100} = 3900 K, R ₂₅ = 2200 Ω, T _R = 25 °C, ΔR _R /R _R = ± 5%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	170030	136970	203080	19.4	2.8	6.9
-50.0	120860	98819	142910	18.2	2.7	6.7
-45.0	86914	72061	101770	17.1	2.6	6.5
-40.0	63188	53084	73292	16.0	2.5	6.3
-35.0	46417	39484	53350	14.9	2.5	6.1
-30.0	34434	29638	39229	13.9	2.4	5.9
-25.0	25772	22433	29112	13.0	2.3	5.7
-20.0	19479	17136	21821	12.0	2.2	5.5
-15.0	14835	13184	16486	11.1	2.1	5.4
-10.0	11399	10229	12570	10.3	2.0	5.2
-5.0	8822	7989	9655	9.4	1.9	5.0
0.0	6882	6288	7477	8.6	1.8	4.9
5.0	5405	4980	5831	7.9	1.7	4.8
10.0	4276	3972	4581	7.1	1.5	4.6
15.0	3404	3186	3623	6.4	1.4	4.5
20.0	2729	2573	2885	5.7	1.3	4.4
25.0	2200	2090	2310	5.0	1.2	4.3
30.0	1784	1683	1886	5.7	1.4	4.1
35.0	1455	1363	1547	6.3	1.6	4.0
40.0	1194	1111	1276	6.9	1.8	3.9
45.0	984.0	910.0	1058	7.5	2.0	3.8
50.0	815.5	749.5	881.4	8.1	2.2	3.7
55.0	679.0	620.4	737.7	8.6	2.4	3.6
60.0	568.2	516.0	620.3	9.2	2.6	3.5
65.0	477.6	431.3	523.8	9.7	2.8	3.4
70.0	403.1	362.0	444.2	10.2	3.0	3.3
75.0	341.8	305.3	378.3	10.7	3.3	3.3
80.0	290.9	258.4	323.4	11.2	3.5	3.2
85.0	248.6	219.7	277.5	11.6	3.7	3.1
90.0	213.3	187.5	239.0	12.1	4.0	3.0
95.0	183.7	160.7	206.7	12.5	4.2	3.0
100.0	158.7	138.2	179.2	12.9	4.5	2.9
105.0	137.6	119.3	156.0	13.4	4.7	2.8
110.0	119.7	103.3	136.2	13.8	5.0	2.8
115.0	104.5	89.73	119.3	14.1	5.3	2.7
120.0	91.51	78.21	104.8	14.5	5.5	2.6
125.0	80.37	68.39	92.35	14.9	5.8	2.6

	B57164K0222K000					
R/T No.	1013					
T (°C)	$B_{25/100} = 3900 \text{ K}$, $R_{25} = 2200 \text{ } \Omega$, $T_R = 25 \text{ } ^\circ\text{C}$, $\Delta R_R/R_R = \pm 10\%$					
	$R_{\text{nomL}}[\Omega]$	$R_{\text{minL}}[\Omega]$	$R_{\text{maxL}}[\Omega]$	$\Delta R_R/R_R[\pm\%]$	$\Delta T[\pm^\circ\text{C}]$	$\alpha (\%/K)$
-55.0	170030	128470	211580	24.4	3.5	6.9
-50.0	120860	92776	148950	23.2	3.5	6.7
-45.0	86914	67715	106110	22.1	3.4	6.5
-40.0	63188	49925	76452	21.0	3.3	6.3
-35.0	46417	37163	55671	19.9	3.3	6.1
-30.0	34434	27917	40951	18.9	3.2	5.9
-25.0	25772	21144	30400	18.0	3.1	5.7
-20.0	19479	16163	22795	17.0	3.1	5.5
-15.0	14835	12442	17228	16.1	3.0	5.4
-10.0	11399	9659	13140	15.3	2.9	5.2
-5.0	8822	7548	10096	14.4	2.9	5.0
0.0	6882	5943	7821	13.6	2.8	4.9
5.0	5405	4709	6101	12.9	2.7	4.8
10.0	4276	3758	4795	12.1	2.6	4.6
15.0	3404	3016	3793	11.4	2.5	4.5
20.0	2729	2436	3021	10.7	2.5	4.4
25.0	2200	1980	2420	10.0	2.4	4.3
30.0	1784	1593	1975	10.7	2.6	4.1
35.0	1455	1290	1620	11.3	2.8	4.0
40.0	1194	1051	1336	11.9	3.0	3.9
45.0	984.0	860.8	1107	12.5	3.3	3.8
50.0	815.5	708.8	922.2	13.1	3.5	3.7
55.0	679.0	586.4	771.6	13.6	3.8	3.6
60.0	568.2	487.6	648.7	14.2	4.0	3.5
65.0	477.6	407.4	547.7	14.7	4.3	3.4
70.0	403.1	341.9	464.4	15.2	4.5	3.3
75.0	341.8	288.2	395.4	15.7	4.8	3.3
80.0	290.9	243.9	337.9	16.2	5.1	3.2
85.0	248.6	207.3	290.0	16.6	5.4	3.1
90.0	213.3	176.9	249.7	17.1	5.6	3.0
95.0	183.7	151.5	215.8	17.5	5.9	3.0
100.0	158.7	130.2	187.2	17.9	6.2	2.9
105.0	137.6	112.4	162.9	18.4	6.5	2.8
110.0	119.7	97.28	142.2	18.8	6.8	2.8
115.0	104.5	84.50	124.5	19.1	7.1	2.7
120.0	91.51	73.63	109.4	19.5	7.4	2.6
125.0	80.37	64.37	96.37	19.9	7.7	2.6

Temperature measurement
B57164
Leaded NTCs, lead spacing 5 mm
K164

B57164K0332J000						
R/T No.	4001					
T (°C)	B _{25/100} = 3950 K, R ₂₅ = 3300 Ω, T _R = 25 °C, ΔR _R /R _R = ± 5%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	290570	233550	347600	19.6	2.7	7.3
-50.0	203450	166000	240900	18.4	2.6	7.0
-45.0	144300	119420	169180	17.2	2.6	6.8
-40.0	103600	86892	120320	16.1	2.5	6.5
-35.0	75246	63912	86581	15.1	2.4	6.3
-30.0	55248	47491	63005	14.0	2.3	6.1
-25.0	40812	35482	46141	13.1	2.2	5.9
-20.0	30477	26784	34169	12.1	2.1	5.7
-15.0	23126	20534	25718	11.2	2.0	5.5
-10.0	17706	15876	19536	10.3	1.9	5.3
-5.0	13616	12323	14909	9.5	1.8	5.2
0.0	10560	9643	11477	8.7	1.7	5.0
5.0	8245	7593	8897	7.9	1.6	4.9
10.0	6488	6024	6953	7.2	1.5	4.7
15.0	5147	4816	5478	6.4	1.4	4.6
20.0	4111	3875	4346	5.7	1.3	4.4
25.0	3300	3135	3465	5.0	1.2	4.3
30.0	2652	2500	2803	5.7	1.4	4.2
35.0	2156	2020	2293	6.3	1.6	4.1
40.0	1764	1641	1887	7.0	1.8	4.0
45.0	1451	1341	1560	7.5	2.0	3.9
50.0	1200	1102	1297	8.1	2.2	3.8
55.0	996.0	909.5	1083	8.7	2.4	3.7
60.0	831.2	754.6	907.9	9.2	2.6	3.6
65.0	697.5	629.5	765.5	9.8	2.8	3.5
70.0	588.0	527.7	648.4	10.3	3.0	3.4
75.0	497.9	444.4	551.5	10.8	3.3	3.3
80.0	423.5	375.9	471.1	11.2	3.5	3.2
85.0	361.3	319.0	403.6	11.7	3.7	3.1
90.0	309.4	271.7	347.0	12.2	4.0	3.1
95.0	266.5	232.9	300.1	12.6	4.2	3.0
100.0	230.5	200.4	260.5	13.0	4.5	2.9
105.0	199.5	172.7	226.3	13.5	4.7	2.9
110.0	173.2	149.2	197.3	13.9	5.0	2.8
115.0	150.9	129.4	172.5	14.3	5.2	2.7
120.0	131.9	112.6	151.2	14.7	5.5	2.7
125.0	115.4	98.09	132.8	15.0	5.8	2.6

	B57164K0332K000					
R/T No.	4001					
T (°C)	$B_{25/100} = 3950 \text{ K}$, $R_{25} = 3300 \text{ } \Omega$, $T_R = 25 \text{ } ^\circ\text{C}$, $\Delta R_R/R_R = \pm 10\%$					
	$R_{\text{nomL}}[\Omega]$	$R_{\text{minL}}[\Omega]$	$R_{\text{maxL}}[\Omega]$	$\Delta R_R/R_R[\pm\%]$	$\Delta T[\pm^\circ\text{C}]$	$\alpha \text{ } (\%/K)$
-55.0	290570	219020	362130	24.6	3.4	7.3
-50.0	203450	155820	251070	23.4	3.3	7.0
-45.0	144300	112200	176400	22.2	3.3	6.8
-40.0	103600	81712	125500	21.1	3.2	6.5
-35.0	75246	60149	90343	20.1	3.2	6.3
-30.0	55248	44729	65767	19.0	3.1	6.1
-25.0	40812	33442	48181	18.1	3.1	5.9
-20.0	30477	25261	35693	17.1	3.0	5.7
-15.0	23126	19378	26874	16.2	2.9	5.5
-10.0	17706	14990	20421	15.3	2.9	5.3
-5.0	13616	11642	15590	14.5	2.8	5.2
0.0	10560	9115	12005	13.7	2.7	5.0
5.0	8245	7181	9310	12.9	2.7	4.9
10.0	6488	5700	7277	12.2	2.6	4.7
15.0	5147	4559	5735	11.4	2.5	4.6
20.0	4111	3670	4552	10.7	2.4	4.4
25.0	3300	2970	3630	10.0	2.3	4.3
30.0	2652	2368	2936	10.7	2.5	4.2
35.0	2156	1912	2401	11.3	2.8	4.1
40.0	1764	1553	1975	12.0	3.0	4.0
45.0	1451	1269	1633	12.5	3.2	3.9
50.0	1200	1042	1357	13.1	3.5	3.8
55.0	996.0	859.7	1132	13.7	3.7	3.7
60.0	831.2	713.0	949.5	14.2	4.0	3.6
65.0	697.5	594.6	800.4	14.8	4.2	3.5
70.0	588.0	498.3	677.8	15.3	4.5	3.4
75.0	497.9	419.5	576.4	15.8	4.8	3.3
80.0	423.5	354.7	492.3	16.2	5.0	3.2
85.0	361.3	300.9	421.6	16.7	5.3	3.1
90.0	309.4	256.3	362.5	17.2	5.6	3.1
95.0	266.5	219.6	313.4	17.6	5.9	3.0
100.0	230.5	188.9	272.1	18.0	6.2	2.9
105.0	199.5	162.7	236.3	18.5	6.5	2.9
110.0	173.2	140.6	205.9	18.9	6.8	2.8
115.0	150.9	121.9	180.0	19.3	7.1	2.7
120.0	131.9	106.0	157.8	19.7	7.4	2.7
125.0	115.4	92.32	138.6	20.0	7.7	2.6

Temperature measurement
B57164
Leaded NTCs, lead spacing 5 mm
K164

	B57164K0472J000					
R/T No.	4001					
T (°C)	B _{25/100} = 3950 K, R ₂₅ = 4700 Ω, T _R = 25 °C, ΔR _R /R _R = ± 5%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	413850	332630	495060	19.6	2.7	7.3
-50.0	289760	236420	343100	18.4	2.6	7.0
-45.0	205520	170080	240960	17.2	2.6	6.8
-40.0	147560	123760	171360	16.1	2.5	6.5
-35.0	107170	91026	123310	15.1	2.4	6.3
-30.0	78687	67639	89734	14.0	2.3	6.1
-25.0	58126	50535	65716	13.1	2.2	5.9
-20.0	43406	38147	48665	12.1	2.1	5.7
-15.0	32937	29245	36629	11.2	2.0	5.5
-10.0	25217	22611	27824	10.3	1.9	5.3
-5.0	19392	17551	21234	9.5	1.8	5.2
0.0	15040	13733	16347	8.7	1.7	5.0
5.0	11743	10815	12672	7.9	1.6	4.9
10.0	9241	8580	9902	7.2	1.5	4.7
15.0	7330	6859	7802	6.4	1.4	4.6
20.0	5855	5520	6190	5.7	1.3	4.4
25.0	4700	4465	4935	5.0	1.2	4.3
30.0	3777	3561	3992	5.7	1.4	4.2
35.0	3071	2877	3266	6.3	1.6	4.1
40.0	2512	2338	2687	7.0	1.8	4.0
45.0	2066	1910	2222	7.5	2.0	3.9
50.0	1709	1570	1848	8.1	2.2	3.8
55.0	1419	1295	1542	8.7	2.4	3.7
60.0	1184	1075	1293	9.2	2.6	3.6
65.0	993.4	896.5	1090	9.8	2.8	3.5
70.0	837.5	751.5	923.4	10.3	3.0	3.4
75.0	709.2	632.9	785.5	10.8	3.3	3.3
80.0	603.2	535.4	671.0	11.2	3.5	3.2
85.0	514.5	454.3	574.8	11.7	3.7	3.1
90.0	440.6	387.0	494.2	12.2	4.0	3.1
95.0	379.6	331.7	427.4	12.6	4.2	3.0
100.0	328.3	285.5	371.1	13.0	4.5	2.9
105.0	284.1	245.9	322.4	13.5	4.7	2.9
110.0	246.7	212.5	281.0	13.9	5.0	2.8
115.0	215.0	184.3	245.6	14.3	5.2	2.7
120.0	187.9	160.3	215.4	14.7	5.5	2.7
125.0	164.4	139.7	189.1	15.0	5.8	2.6

	B57164K0472K000					
R/T No.	4001					
T (°C)	B _{25/100} = 3950 K, R ₂₅ = 4700 Ω, T _R = 25 °C, ΔR _R /R _R = ± 10%					
	R _{nomL} [Ω]	R _{minL} [Ω]	R _{maxL} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	413850	311930	515760	24.6	3.4	7.3
-50.0	289760	221930	357580	23.4	3.3	7.0
-45.0	205520	159800	251230	22.2	3.3	6.8
-40.0	147560	116380	178740	21.1	3.2	6.5
-35.0	107170	85667	128670	20.1	3.2	6.3
-30.0	78687	63704	93669	19.0	3.1	6.1
-25.0	58126	47629	68622	18.1	3.1	5.9
-20.0	43406	35977	50835	17.1	3.0	5.7
-15.0	32937	27598	38276	16.2	2.9	5.5
-10.0	25217	21350	29085	15.3	2.9	5.3
-5.0	19392	16581	22203	14.5	2.8	5.2
0.0	15040	12981	17099	13.7	2.7	5.0
5.0	11743	10228	13259	12.9	2.7	4.9
10.0	9241	8118	10364	12.2	2.6	4.7
15.0	7330	6493	8168	11.4	2.5	4.6
20.0	5855	5227	6483	10.7	2.4	4.4
25.0	4700	4230	5170	10.0	2.3	4.3
30.0	3777	3372	4181	10.7	2.5	4.2
35.0	3071	2723	3420	11.3	2.8	4.1
40.0	2512	2212	2813	12.0	3.0	4.0
45.0	2066	1807	2326	12.5	3.2	3.9
50.0	1709	1485	1933	13.1	3.5	3.8
55.0	1419	1224	1613	13.7	3.7	3.7
60.0	1184	1015	1352	14.2	4.0	3.6
65.0	993.4	846.9	1140	14.8	4.2	3.5
70.0	837.5	709.7	965.3	15.3	4.5	3.4
75.0	709.2	597.4	821.0	15.8	4.8	3.3
80.0	603.2	505.2	701.1	16.2	5.0	3.2
85.0	514.5	428.6	600.5	16.7	5.3	3.1
90.0	440.6	365.0	516.2	17.2	5.6	3.1
95.0	379.6	312.8	446.4	17.6	5.9	3.0
100.0	328.3	269.0	387.5	18.0	6.2	2.9
105.0	284.1	231.7	336.6	18.5	6.5	2.9
110.0	246.7	200.2	293.3	18.9	6.8	2.8
115.0	215.0	173.6	256.4	19.3	7.1	2.7
120.0	187.9	150.9	224.8	19.7	7.4	2.7
125.0	164.4	131.5	197.4	20.0	7.7	2.6

Temperature measurement
B57164
Leaded NTCs, lead spacing 5 mm
K164

	B57164K0682J000					
R/T No.	2903					
T (°C)	B _{25/100} = 4200 K, R ₂₅ = 6800 Ω, T _R = 25 °C, ΔR _R /R _R = ± 5%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	816190	648480	983900	20.5	2.7	7.6
-50.0	560180	452330	668040	19.3	2.6	7.4
-45.0	389280	319150	459420	18.0	2.5	7.2
-40.0	273740	227660	319810	16.8	2.4	7.0
-35.0	194670	164110	225220	15.7	2.3	6.7
-30.0	139930	119490	160370	14.6	2.2	6.5
-25.0	101150	87433	114880	13.6	2.1	6.3
-20.0	73987	64692	83281	12.6	2.1	6.1
-15.0	54950	48577	61323	11.6	2.0	5.9
-10.0	41216	36818	45614	10.7	1.9	5.7
-5.0	31042	28006	34077	9.8	1.8	5.6
0.0	23602	21497	25706	8.9	1.7	5.4
5.0	18105	16640	19569	8.1	1.6	5.2
10.0	14007	12986	15028	7.3	1.4	5.1
15.0	10927	10215	11639	6.5	1.3	4.9
20.0	8589	8093	9085	5.8	1.2	4.8
25.0	6800	6460	7140	5.0	1.1	4.6
30.0	5412	5101	5723	5.7	1.3	4.5
35.0	4338	4060	4617	6.4	1.5	4.4
40.0	3500	3252	3747	7.1	1.7	4.2
45.0	2848	2629	3068	7.7	1.9	4.1
50.0	2331	2137	2524	8.3	2.1	4.0
55.0	1909	1739	2080	8.9	2.3	3.9
60.0	1574	1424	1723	9.5	2.5	3.8
65.0	1306	1175	1438	10.0	2.7	3.7
70.0	1090	974.4	1205	10.6	2.9	3.6
75.0	912.6	811.1	1014	11.1	3.2	3.5
80.0	767.6	678.3	856.8	11.6	3.4	3.4
85.0	648.2	569.6	726.8	12.1	3.6	3.3
90.0	549.6	480.3	619.0	12.6	3.9	3.2
95.0	468.6	407.3	530.0	13.1	4.1	3.2
100.0	401.1	346.8	455.5	13.5	4.4	3.1
105.0	344.8	296.5	393.0	14.0	4.6	3.0
110.0	297.4	254.5	340.3	14.4	4.9	2.9
115.0	256.9	218.7	295.0	14.8	5.2	2.9
120.0	222.6	188.6	256.6	15.3	5.4	2.8
125.0	193.9	163.5	224.3	15.7	5.7	2.7

	B57164K0682K000					
R/T No.	2903					
T (°C)	$B_{25/100} = 4200 \text{ K}$, $R_{25} = 6800 \text{ } \Omega$, $T_R = 25 \text{ } ^\circ\text{C}$, $\Delta R_R/R_R = \pm 10\%$					
	$R_{\text{nomL}}[\Omega]$	$R_{\text{minL}}[\Omega]$	$R_{\text{maxL}}[\Omega]$	$\Delta R_R/R_R[\pm\%]$	$\Delta T[\pm^\circ\text{C}]$	$\alpha (\%/K)$
-55.0	816190	607670	1024700	25.5	3.3	7.6
-50.0	560180	424320	696050	24.3	3.3	7.4
-45.0	389280	299690	478880	23.0	3.2	7.2
-40.0	273740	213980	333500	21.8	3.1	7.0
-35.0	194670	154370	234960	20.7	3.1	6.7
-30.0	139930	112490	167370	19.6	3.0	6.5
-25.0	101150	82375	119930	18.6	2.9	6.3
-20.0	73987	60993	86980	17.6	2.9	6.1
-15.0	54950	45829	64070	16.6	2.8	5.9
-10.0	41216	34757	47675	15.7	2.7	5.7
-5.0	31042	26454	35629	14.8	2.7	5.6
0.0	23602	20317	26887	13.9	2.6	5.4
5.0	18105	15735	20475	13.1	2.5	5.2
10.0	14007	12286	15728	12.3	2.4	5.1
15.0	10927	9668	12185	11.5	2.3	4.9
20.0	8589	7664	9514	10.8	2.3	4.8
25.0	6800	6120	7480	10.0	2.2	4.6
30.0	5412	4831	5994	10.7	2.4	4.5
35.0	4338	3843	4834	11.4	2.6	4.4
40.0	3500	3077	3922	12.1	2.9	4.2
45.0	2848	2486	3210	12.7	3.1	4.1
50.0	2331	2020	2641	13.3	3.3	4.0
55.0	1909	1644	2175	13.9	3.6	3.9
60.0	1574	1346	1802	14.5	3.8	3.8
65.0	1306	1110	1503	15.0	4.1	3.7
70.0	1090	919.9	1260	15.6	4.3	3.6
75.0	912.6	765.5	1060	16.1	4.6	3.5
80.0	767.6	639.9	895.2	16.6	4.9	3.4
85.0	648.2	537.2	759.3	17.1	5.2	3.3
90.0	549.6	452.8	646.4	17.6	5.4	3.2
95.0	468.6	383.9	553.4	18.1	5.7	3.2
100.0	401.1	326.7	475.5	18.5	6.0	3.1
105.0	344.8	279.3	410.2	19.0	6.3	3.0
110.0	297.4	239.6	355.2	19.4	6.6	2.9
115.0	256.9	205.9	307.9	19.8	6.9	2.9
120.0	222.6	177.5	267.7	20.3	7.2	2.8
125.0	193.9	153.8	234.0	20.7	7.5	2.7

Temperature measurement
B57164
Leaded NTCs, lead spacing 5 mm
K164

	B57164K0103J000					
R/T No.	2904					
T (°C)	B _{25/100} = 4300 K, R ₂₅ = 10000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 5%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	1214600	960540	1468600	20.9	2.9	7.3
-50.0	844390	678960	1009800	19.6	2.7	7.1
-45.0	592430	483870	701000	18.3	2.6	7.0
-40.0	419380	347620	491150	17.1	2.5	6.9
-35.0	299480	251710	347240	16.0	2.4	6.7
-30.0	215670	183670	247670	14.8	2.3	6.5
-25.0	156410	134870	177940	13.8	2.2	6.3
-20.0	114660	100050	129270	12.7	2.1	6.2
-15.0	84510	74576	94443	11.8	2.0	6.0
-10.0	62927	56128	69726	10.8	1.9	5.8
-5.0	47077	42421	51733	9.9	1.8	5.6
0.0	35563	32359	38767	9.0	1.6	5.5
5.0	27119	24905	29332	8.2	1.5	5.3
10.0	20860	19328	22391	7.3	1.4	5.2
15.0	16204	15143	17266	6.6	1.3	5.0
20.0	12683	11949	13418	5.8	1.2	4.9
25.0	10000	9500	10500	5.0	1.1	4.7
30.0	7942	7484	8400	5.8	1.3	4.6
35.0	6327	5918	6735	6.5	1.4	4.5
40.0	5074	4713	5435	7.1	1.6	4.3
45.0	4103	3784	4421	7.8	1.8	4.2
50.0	3336	3056	3616	8.4	2.0	4.1
55.0	2724	2479	2970	9.0	2.3	4.0
60.0	2237	2022	2452	9.6	2.5	3.9
65.0	1846	1658	2034	10.2	2.7	3.8
70.0	1530	1366	1695	10.7	2.9	3.7
75.0	1275	1132	1419	11.3	3.1	3.6
80.0	1068	941.9	1194	11.8	3.4	3.5
85.0	899.3	788.7	1010	12.3	3.6	3.4
90.0	760.7	663.4	858.0	12.8	3.8	3.3
95.0	645.2	559.6	730.9	13.3	4.1	3.2
100.0	549.4	473.9	624.9	13.7	4.3	3.2
105.0	470.0	403.3	536.8	14.2	4.6	3.1
110.0	403.6	344.5	462.7	14.6	4.8	3.0
115.0	347.4	295.0	399.8	15.1	5.1	3.0
120.0	300.1	253.5	346.6	15.5	5.4	2.9
125.0	260.1	218.7	301.5	15.9	5.6	2.8

	B57164K0103K000					
R/T No.	2904					
T (°C)	B _{25/100} = 4300 K, R ₂₅ = 10000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 10%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	1214600	899810	1529400	25.9	3.6	7.3
-50.0	844390	636740	1052000	24.6	3.4	7.1
-45.0	592430	454250	730620	23.3	3.3	7.0
-40.0	419380	326650	512120	22.1	3.2	6.9
-35.0	299480	236730	362220	21.0	3.1	6.7
-30.0	215670	172890	258460	19.8	3.0	6.5
-25.0	156410	127050	185760	18.8	3.0	6.3
-20.0	114660	94315	135000	17.7	2.9	6.2
-15.0	84510	70351	98669	16.8	2.8	6.0
-10.0	62927	52981	72872	15.8	2.7	5.8
-5.0	47077	40067	54087	14.9	2.6	5.6
0.0	35563	30581	40545	14.0	2.6	5.5
5.0	27119	23550	30688	13.2	2.5	5.3
10.0	20860	18285	23434	12.3	2.4	5.2
15.0	16204	14332	18076	11.6	2.3	5.0
20.0	12683	11315	14052	10.8	2.2	4.9
25.0	10000	9000	11000	10.0	2.1	4.7
30.0	7942	7087	8797	10.8	2.3	4.6
35.0	6327	5602	7051	11.5	2.6	4.5
40.0	5074	4459	5689	12.1	2.8	4.3
45.0	4103	3579	4627	12.8	3.0	4.2
50.0	3336	2889	3783	13.4	3.3	4.1
55.0	2724	2343	3106	14.0	3.5	4.0
60.0	2237	1910	2563	14.6	3.8	3.9
65.0	1846	1566	2126	15.2	4.0	3.8
70.0	1530	1290	1771	15.7	4.3	3.7
75.0	1275	1068	1483	16.3	4.5	3.6
80.0	1068	888.5	1247	16.8	4.8	3.5
85.0	899.3	743.7	1055	17.3	5.1	3.4
90.0	760.7	625.3	896.0	17.8	5.3	3.3
95.0	645.2	527.3	763.2	18.3	5.6	3.2
100.0	549.4	446.4	652.4	18.7	5.9	3.2
105.0	470.0	379.8	560.3	19.2	6.2	3.1
110.0	403.6	324.3	482.9	19.6	6.5	3.0
115.0	347.4	277.7	417.2	20.1	6.8	3.0
120.0	300.1	238.5	361.6	20.5	7.1	2.9
125.0	260.1	205.7	314.5	20.9	7.4	2.8

Temperature measurement
B57164
Leaded NTCs, lead spacing 5 mm
K164

B57164K0153J000						
R/T No.	1014					
T (°C)	B _{25/100} = 4250 K, R ₂₅ = 15000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 5%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	1259000	998000	1520100	20.7	3.1	6.6
-50.0	903420	727950	1078900	19.4	3.0	6.5
-45.0	653890	535080	772710	18.2	2.9	6.4
-40.0	477220	396230	558220	17.0	2.7	6.2
-35.0	351070	295510	406620	15.8	2.6	6.1
-30.0	260240	221930	298560	14.7	2.5	5.9
-25.0	194190	167650	220730	13.7	2.4	5.8
-20.0	146160	127670	164650	12.7	2.2	5.7
-15.0	110610	97692	123520	11.7	2.1	5.5
-10.0	84370	75311	93429	10.7	2.0	5.4
-5.0	64595	58242	70947	9.8	1.9	5.2
0.0	49831	45364	54298	9.0	1.8	5.1
5.0	38668	35526	41810	8.1	1.6	5.0
10.0	30216	28005	32426	7.3	1.5	4.9
15.0	23772	22219	25326	6.5	1.4	4.7
20.0	18820	17733	19908	5.8	1.2	4.6
25.0	15000	14250	15750	5.0	1.1	4.5
30.0	11987	11297	12677	5.8	1.3	4.4
35.0	9643	9022	10264	6.4	1.5	4.3
40.0	7799	7245	8352	7.1	1.7	4.2
45.0	6345	5854	6836	7.7	1.9	4.1
50.0	5186	4752	5619	8.4	2.1	4.0
55.0	4245	3864	4625	9.0	2.3	3.9
60.0	3492	3158	3825	9.5	2.5	3.8
65.0	2889	2597	3181	10.1	2.7	3.7
70.0	2401	2145	2657	10.7	2.9	3.7
75.0	2002	1778	2226	11.2	3.1	3.6
80.0	1676	1480	1873	11.7	3.3	3.5
85.0	1409	1237	1581	12.2	3.5	3.4
90.0	1188	1037	1339	12.7	3.8	3.4
95.0	1006	873.2	1138	13.2	4.0	3.3
100.0	854.0	737.4	970.5	13.6	4.2	3.2
105.0	728.9	626.1	831.6	14.1	4.4	3.2
110.0	624.1	533.4	714.8	14.5	4.7	3.1
115.0	534.8	454.8	614.8	15.0	4.9	3.1
120.0	459.5	388.9	530.2	15.4	5.1	3.0
125.0	396.8	334.2	459.5	15.8	5.4	2.9

	B57164K0153K000					
R/T No.	1014					
T (°C)	$B_{25/100} = 4250 \text{ K}$, $R_{25} = 15000 \Omega$, $T_R = 25 \text{ °C}$, $\Delta R_R/R_R = \pm 10\%$					
	$R_{\text{nomL}}[\Omega]$	$R_{\text{minL}}[\Omega]$	$R_{\text{maxL}}[\Omega]$	$\Delta R_R/R_R[\pm\%]$	$\Delta T[\pm\text{°C}]$	$\alpha (\%/K)$
-55.0	1259000	935050	1583000	25.7	3.9	6.6
-50.0	903420	682780	1124100	24.4	3.8	6.5
-45.0	653890	502380	805400	23.2	3.6	6.4
-40.0	477220	372370	582080	22.0	3.5	6.2
-35.0	351070	277960	424170	20.8	3.4	6.1
-30.0	260240	208910	311570	19.7	3.3	5.9
-25.0	194190	157950	230440	18.7	3.2	5.8
-20.0	146160	120360	171960	17.7	3.1	5.7
-15.0	110610	92161	129050	16.7	3.0	5.5
-10.0	84370	71092	97648	15.7	2.9	5.4
-5.0	64595	55013	74177	14.8	2.8	5.2
0.0	49831	42873	56790	14.0	2.7	5.1
5.0	38668	33593	43743	13.1	2.6	5.0
10.0	30216	26495	33937	12.3	2.5	4.9
15.0	23772	21031	26514	11.5	2.4	4.7
20.0	18820	16792	20849	10.8	2.3	4.6
25.0	15000	13500	16500	10.0	2.2	4.5
30.0	11987	10698	13276	10.8	2.4	4.4
35.0	9643	8540	10746	11.4	2.7	4.3
40.0	7799	6855	8742	12.1	2.9	4.2
45.0	6345	5537	7153	12.7	3.1	4.1
50.0	5186	4493	5879	13.4	3.3	4.0
55.0	4245	3652	4837	14.0	3.6	3.9
60.0	3492	2984	3999	14.5	3.8	3.8
65.0	2889	2453	3326	15.1	4.0	3.7
70.0	2401	2025	2777	15.7	4.3	3.7
75.0	2002	1678	2327	16.2	4.5	3.6
80.0	1676	1396	1956	16.7	4.8	3.5
85.0	1409	1166	1652	17.2	5.0	3.4
90.0	1188	978.1	1399	17.7	5.3	3.4
95.0	1006	822.9	1189	18.2	5.5	3.3
100.0	854.0	694.7	1013	18.6	5.8	3.2
105.0	728.9	589.7	868.1	19.1	6.0	3.2
110.0	624.1	502.1	746.0	19.5	6.3	3.1
115.0	534.8	428.0	641.6	20.0	6.5	3.1
120.0	459.5	365.9	553.2	20.4	6.8	3.0
125.0	396.8	314.3	479.3	20.8	7.1	2.9

B57164K0223J000						
R/T No.	1012					
T (°C)	B _{25/100} = 4300 K, R ₂₅ = 22000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 5%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	1919200	1517800	2320700	20.9	3.1	6.8
-50.0	1369800	1101400	1638200	19.6	2.9	6.7
-45.0	986790	805960	1167600	18.3	2.8	6.5
-40.0	717180	594450	839900	17.1	2.7	6.3
-35.0	525650	441800	609490	16.0	2.6	6.2
-30.0	388390	330760	446010	14.8	2.5	6.0
-25.0	288150	248480	327830	13.8	2.4	5.8
-20.0	215730	188240	243220	12.7	2.2	5.7
-15.0	163380	144180	182590	11.8	2.1	5.5
-10.0	124690	111220	138160	10.8	2.0	5.4
-5.0	95069	85666	104470	9.9	1.9	5.3
0.0	73058	66476	79641	9.0	1.8	5.1
5.0	56853	52213	61493	8.2	1.6	5.0
10.0	44524	41255	47793	7.3	1.5	4.9
15.0	34887	32601	37172	6.6	1.4	4.8
20.0	27514	25922	29107	5.8	1.2	4.7
25.0	22000	20900	23100	5.0	1.1	4.6
30.0	17521	16511	18531	5.8	1.3	4.4
35.0	14092	13182	15001	6.5	1.5	4.3
40.0	11390	10579	12201	7.1	1.7	4.2
45.0	9231	8514	9948	7.8	1.9	4.1
50.0	7518	6886	8149	8.4	2.1	4.1
55.0	6133	5581	6685	9.0	2.3	4.0
60.0	5029	4547	5512	9.6	2.5	3.9
65.0	4152	3730	4574	10.2	2.7	3.8
70.0	3442	3073	3811	10.7	2.9	3.7
75.0	2863	2540	3185	11.3	3.1	3.6
80.0	2390	2108	2671	11.8	3.3	3.6
85.0	2005	1758	2251	12.3	3.5	3.5
90.0	1687	1472	1903	12.8	3.8	3.4
95.0	1427	1238	1617	13.3	4.0	3.3
100.0	1211	1045	1377	13.7	4.2	3.3
105.0	1030	883.3	1176	14.2	4.4	3.2
110.0	877.9	749.3	1006	14.6	4.7	3.1
115.0	753.6	640.0	867.3	15.1	4.9	3.1
120.0	649.0	548.3	749.6	15.5	5.1	3.0
125.0	559.9	470.8	649.0	15.9	5.4	3.0

	B57164K0223K000					
R/T No.	1012					
T (°C)	$B_{25/100} = 4300 \text{ K}$, $R_{25} = 22000 \Omega$, $T_R = 25 \text{ °C}$, $\Delta R_R/R_R = \pm 10\%$					
	$R_{\text{nomL}}[\Omega]$	$R_{\text{minL}}[\Omega]$	$R_{\text{maxL}}[\Omega]$	$\Delta R_R/R_R[\pm\%]$	$\Delta T[\pm\text{°C}]$	$\alpha (\%/K)$
-55.0	1919200	1421800	2416600	25.9	3.8	6.8
-50.0	1369800	1033000	1706700	24.6	3.7	6.7
-45.0	986790	756620	1217000	23.3	3.6	6.5
-40.0	717180	558590	875760	22.1	3.5	6.3
-35.0	525650	415520	635770	21.0	3.4	6.2
-30.0	388390	311340	465430	19.8	3.3	6.0
-25.0	288150	234070	342240	18.8	3.2	5.8
-20.0	215730	177460	254000	17.7	3.1	5.7
-15.0	163380	136010	190760	16.8	3.0	5.5
-10.0	124690	104980	144400	15.8	2.9	5.4
-5.0	95069	80913	109230	14.9	2.8	5.3
0.0	73058	62823	83294	14.0	2.7	5.1
5.0	56853	49371	64335	13.2	2.6	5.0
10.0	44524	39029	50019	12.3	2.5	4.9
15.0	34887	30857	38916	11.6	2.4	4.8
20.0	27514	24546	30483	10.8	2.3	4.7
25.0	22000	19800	24200	10.0	2.2	4.6
30.0	17521	15635	19407	10.8	2.4	4.4
35.0	14092	12478	15706	11.5	2.6	4.3
40.0	11390	10009	12771	12.1	2.9	4.2
45.0	9231	8052	10410	12.8	3.1	4.1
50.0	7518	6511	8525	13.4	3.3	4.1
55.0	6133	5274	6992	14.0	3.5	4.0
60.0	5029	4295	5763	14.6	3.8	3.9
65.0	4152	3522	4782	15.2	4.0	3.8
70.0	3442	2901	3983	15.7	4.2	3.7
75.0	2863	2397	3328	16.3	4.5	3.6
80.0	2390	1989	2791	16.8	4.7	3.6
85.0	2005	1658	2351	17.3	5.0	3.5
90.0	1687	1387	1988	17.8	5.2	3.4
95.0	1427	1166	1688	18.3	5.5	3.3
100.0	1211	984.0	1438	18.7	5.7	3.3
105.0	1030	831.8	1227	19.2	6.0	3.2
110.0	877.9	705.4	1050	19.6	6.3	3.1
115.0	753.6	602.3	905.0	20.1	6.5	3.1
120.0	649.0	515.9	782.0	20.5	6.8	3.0
125.0	559.9	442.8	677.0	20.9	7.1	3.0

Temperature measurement
B57164
Leaded NTCs, lead spacing 5 mm
K164

B57164K0333J000						
R/T No.	1012					
T (°C)	B _{25/100} = 4300 K, R ₂₅ = 33000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 5%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	2878800	2276700	3481000	20.9	3.1	6.8
-50.0	2054700	1652200	2457300	19.6	2.9	6.7
-45.0	1480200	1208900	1751400	18.3	2.8	6.5
-40.0	1075800	891680	1259900	17.1	2.7	6.3
-35.0	788470	662700	914230	16.0	2.6	6.2
-30.0	582580	496140	669020	14.8	2.5	6.0
-25.0	432230	372720	491740	13.8	2.4	5.8
-20.0	323590	282360	364820	12.7	2.2	5.7
-15.0	245080	216270	273880	11.8	2.1	5.5
-10.0	187040	166830	207240	10.8	2.0	5.4
-5.0	142600	128500	156710	9.9	1.9	5.3
0.0	109590	99714	119460	9.0	1.8	5.1
5.0	85279	78320	92239	8.2	1.6	5.0
10.0	66786	61883	71690	7.3	1.5	4.9
15.0	52330	48901	55758	6.6	1.4	4.8
20.0	41272	38883	43660	5.8	1.2	4.7
25.0	33000	31350	34650	5.0	1.1	4.6
30.0	26281	24767	27796	5.8	1.3	4.4
35.0	21138	19773	22502	6.5	1.5	4.3
40.0	17085	15868	18302	7.1	1.7	4.2
45.0	13846	12770	14922	7.8	1.9	4.1
50.0	11277	10330	12224	8.4	2.1	4.1
55.0	9199	8371	10028	9.0	2.3	4.0
60.0	7544	6820	8268	9.6	2.5	3.9
65.0	6228	5595	6861	10.2	2.7	3.8
70.0	5163	4609	5716	10.7	2.9	3.7
75.0	4294	3810	4778	11.3	3.1	3.6
80.0	3585	3162	4007	11.8	3.3	3.6
85.0	3007	2637	3377	12.3	3.5	3.5
90.0	2531	2207	2855	12.8	3.8	3.4
95.0	2141	1856	2425	13.3	4.0	3.3
100.0	1817	1567	2066	13.7	4.2	3.3
105.0	1544	1325	1764	14.2	4.4	3.2
110.0	1317	1124	1510	14.6	4.7	3.1
115.0	1130	959.9	1301	15.1	4.9	3.1
120.0	973.4	822.5	1124	15.5	5.1	3.0
125.0	839.8	706.1	973.5	15.9	5.4	3.0

	B57164K0333K000					
R/T No.	1012					
T (°C)	$B_{25/100} = 4300 \text{ K}$, $R_{25} = 33000 \Omega$, $T_R = 25 \text{ °C}$, $\Delta R_R/R_R = \pm 10\%$					
	$R_{\text{nomL}}[\Omega]$	$R_{\text{minL}}[\Omega]$	$R_{\text{maxL}}[\Omega]$	$\Delta R_R/R_R[\pm\%]$	$\Delta T[\pm\text{°C}]$	$\alpha (\%/K)$
-55.0	2878800	2132700	3624900	25.9	3.8	6.8
-50.0	2054700	1549400	2560000	24.6	3.7	6.7
-45.0	1480200	1134900	1825400	23.3	3.6	6.5
-40.0	1075800	837890	1313600	22.1	3.5	6.3
-35.0	788470	623280	953660	21.0	3.4	6.2
-30.0	582580	467010	698140	19.8	3.3	6.0
-25.0	432230	351110	513350	18.8	3.2	5.8
-20.0	323590	266180	381000	17.7	3.1	5.7
-15.0	245080	204020	286140	16.8	3.0	5.5
-10.0	187040	157470	216600	15.8	2.9	5.4
-5.0	142600	121370	163840	14.9	2.8	5.3
0.0	109590	94234	124940	14.0	2.7	5.1
5.0	85279	74056	96503	13.2	2.6	5.0
10.0	66786	58543	75029	12.3	2.5	4.9
15.0	52330	46285	58375	11.6	2.4	4.8
20.0	41272	36819	45724	10.8	2.3	4.7
25.0	33000	29700	36300	10.0	2.2	4.6
30.0	26281	23452	29110	10.8	2.4	4.4
35.0	21138	18717	23559	11.5	2.6	4.3
40.0	17085	15014	19156	12.1	2.9	4.2
45.0	13846	12078	15614	12.8	3.1	4.1
50.0	11277	9766	12787	13.4	3.3	4.1
55.0	9199	7911	10488	14.0	3.5	4.0
60.0	7544	6443	8645	14.6	3.8	3.9
65.0	6228	5283	7172	15.2	4.0	3.8
70.0	5163	4351	5974	15.7	4.2	3.7
75.0	4294	3596	4992	16.3	4.5	3.6
80.0	3585	2983	4186	16.8	4.7	3.6
85.0	3007	2487	3527	17.3	5.0	3.5
90.0	2531	2081	2982	17.8	5.2	3.4
95.0	2141	1749	2532	18.3	5.5	3.3
100.0	1817	1476	2157	18.7	5.7	3.3
105.0	1544	1248	1841	19.2	6.0	3.2
110.0	1317	1058	1576	19.6	6.3	3.1
115.0	1130	903.4	1357	20.1	6.5	3.1
120.0	973.4	773.8	1173	20.5	6.8	3.0
125.0	839.8	664.1	1015	20.9	7.1	3.0

B57164K0473J000						
R/T No.	4003					
T (°C)	B _{25/100} = 4450 K, R ₂₅ = 47000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 5%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	4879100	3831600	5926700	21.5	3.1	6.8
-50.0	3464200	2768000	4160500	20.1	3.0	6.7
-45.0	2478000	2012400	2943500	18.8	2.8	6.6
-40.0	1785400	1472400	2098500	17.5	2.7	6.5
-35.0	1295600	1084000	1507200	16.3	2.6	6.4
-30.0	946690	803000	1090400	15.2	2.4	6.2
-25.0	695650	597760	793550	14.1	2.3	6.1
-20.0	515860	448750	582970	13.0	2.2	6.0
-15.0	384200	338140	430260	12.0	2.1	5.8
-10.0	288610	256850	320380	11.0	1.9	5.7
-5.0	217760	195850	239660	10.1	1.8	5.5
0.0	165640	150490	180800	9.1	1.7	5.4
5.0	126880	116380	137370	8.3	1.6	5.3
10.0	97906	90639	105170	7.4	1.4	5.1
15.0	76090	71065	81115	6.6	1.3	5.0
20.0	59531	56070	62992	5.8	1.2	4.9
25.0	47000	44650	49350	5.0	1.1	4.8
30.0	36825	34693	38957	5.8	1.2	4.6
35.0	29315	27409	31221	6.5	1.4	4.5
40.0	23470	21782	25159	7.2	1.6	4.4
45.0	18903	17416	20389	7.9	1.8	4.3
50.0	15302	13999	16604	8.5	2.0	4.2
55.0	12409	11274	13544	9.1	2.2	4.1
60.0	10118	9131	11105	9.8	2.4	4.0
65.0	8316	7455	9176	10.3	2.6	3.9
70.0	6869	6119	7620	10.9	2.8	3.8
75.0	5685	5033	6338	11.5	3.1	3.8
80.0	4725	4157	5293	12.0	3.3	3.7
85.0	3937	3443	4431	12.6	3.5	3.6
90.0	3292	2862	3722	13.1	3.7	3.5
95.0	2770	2394	3146	13.6	3.9	3.4
100.0	2340	2011	2668	14.0	4.2	3.4
105.0	1981	1693	2269	14.5	4.4	3.3
110.0	1683	1431	1935	15.0	4.6	3.2
115.0	1434	1212	1655	15.4	4.9	3.2
120.0	1225	1031	1420	15.9	5.1	3.1
125.0	1050	878.6	1221	16.3	5.4	3.0

	B57164K0473K000					
R/T No.	4003					
T (°C)	$B_{25/100} = 4450 \text{ K}$, $R_{25} = 47000 \Omega$, $T_R = 25 \text{ °C}$, $\Delta R_R/R_R = \pm 10\%$					
	$R_{\text{nomL}}[\Omega]$	$R_{\text{minL}}[\Omega]$	$R_{\text{maxL}}[\Omega]$	$\Delta R_R/R_R[\pm\%]$	$\Delta T[\pm\text{°C}]$	$\alpha \text{ (}\%/\text{K)}$
–55.0	4879100	3587600	6170700	26.5	3.9	6.8
–50.0	3464200	2594800	4333700	25.1	3.7	6.7
–45.0	2478000	1888500	3067400	23.8	3.6	6.6
–40.0	1785400	1383100	2187700	22.5	3.5	6.5
–35.0	1295600	1019200	1571900	21.3	3.3	6.4
–30.0	946690	755660	1137700	20.2	3.2	6.2
–25.0	695650	562980	828330	19.1	3.1	6.1
–20.0	515860	422960	608770	18.0	3.0	6.0
–15.0	384200	318930	449460	17.0	2.9	5.8
–10.0	288610	242420	334810	16.0	2.8	5.7
–5.0	217760	184960	250550	15.1	2.7	5.5
0.0	165640	142210	189080	14.1	2.6	5.4
5.0	126880	110040	143710	13.3	2.5	5.3
10.0	97906	85744	110070	12.4	2.4	5.1
15.0	76090	67260	84919	11.6	2.3	5.0
20.0	59531	53094	65969	10.8	2.2	4.9
25.0	47000	42300	51700	10.0	2.1	4.8
30.0	36825	32852	40798	10.8	2.3	4.6
35.0	29315	25943	32687	11.5	2.5	4.5
40.0	23470	20608	26333	12.2	2.8	4.4
45.0	18903	16471	21334	12.9	3.0	4.3
50.0	15302	13234	17370	13.5	3.2	4.2
55.0	12409	10654	14164	14.1	3.4	4.1
60.0	10118	8625	11611	14.8	3.7	4.0
65.0	8316	7040	9592	15.3	3.9	3.9
70.0	6869	5776	7963	15.9	4.1	3.8
75.0	5685	4748	6622	16.5	4.4	3.8
80.0	4725	3921	5529	17.0	4.6	3.7
85.0	3937	3246	4628	17.6	4.9	3.6
90.0	3292	2697	3886	18.1	5.1	3.5
95.0	2770	2256	3284	18.6	5.4	3.4
100.0	2340	1894	2785	19.0	5.7	3.4
105.0	1981	1594	2368	19.5	5.9	3.3
110.0	1683	1346	2019	20.0	6.2	3.2
115.0	1434	1141	1727	20.4	6.5	3.2
120.0	1225	969.5	1481	20.9	6.7	3.1
125.0	1050	826.1	1273	21.3	7.0	3.0

Temperature measurement
B57164
Leaded NTCs, lead spacing 5 mm
K164

	B57164K0683J000					
R/T No.	2005					
T (°C)	B _{25/100} = 4600 K, R ₂₅ = 68000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 5%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	8175000	6374600	9975500	22.0	3.2	6.8
-50.0	5812600	4614900	7010400	20.6	3.0	6.8
-45.0	4148200	3349700	4946800	19.3	2.8	6.8
-40.0	2972400	2438800	3506100	18.0	2.7	6.7
-35.0	2139200	1781700	2496700	16.7	2.5	6.6
-30.0	1546700	1306700	1786800	15.5	2.4	6.4
-25.0	1121300	960100	1282500	14.4	2.3	6.3
-20.0	820800	711820	929780	13.3	2.1	6.2
-15.0	601490	527980	675010	12.2	2.0	6.0
-10.0	445030	395160	494910	11.2	1.9	5.9
-5.0	332200	298220	366170	10.2	1.8	5.7
0.0	250110	226880	273330	9.3	1.7	5.6
5.0	190020	174100	205940	8.4	1.5	5.5
10.0	145460	134550	156370	7.5	1.4	5.3
15.0	112250	104780	119720	6.7	1.3	5.2
20.0	87197	82105	92289	5.8	1.2	5.1
25.0	68000	64600	71400	5.0	1.0	4.9
30.0	53307	50208	56406	5.8	1.2	4.8
35.0	42039	39285	44794	6.6	1.4	4.7
40.0	33356	30932	35780	7.3	1.6	4.6
45.0	26599	24481	28716	8.0	1.8	4.5
50.0	21332	19491	23173	8.6	2.0	4.3
55.0	17230	15631	18829	9.3	2.2	4.2
60.0	13984	12598	15370	9.9	2.4	4.1
65.0	11398	10199	12598	10.5	2.6	4.1
70.0	9334	8296	10372	11.1	2.8	4.0
75.0	7669	6772	8567	11.7	3.0	3.9
80.0	6328	5552	7103	12.3	3.2	3.8
85.0	5248	4576	5920	12.8	3.5	3.7
90.0	4370	3787	4953	13.3	3.7	3.6
95.0	3650	3145	4156	13.9	3.9	3.5
100.0	3060	2621	3499	14.4	4.1	3.5
105.0	2578	2196	2961	14.8	4.4	3.4
110.0	2180	1846	2514	15.3	4.6	3.3
115.0	1847	1555	2138	15.8	4.8	3.3
120.0	1569	1315	1824	16.2	5.1	3.2
125.0	1338	1115	1561	16.7	5.3	3.1

	B57164K0683K000					
R/T No.	2005					
T (°C)	B _{25/100} = 4600 K, R ₂₅ = 68000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 10%					
	R _{nomL} [Ω]	R _{minL} [Ω]	R _{maxL} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	8175000	5965800	10384000	27.0	4.0	6.8
-50.0	5812600	4324200	7301000	25.6	3.8	6.8
-45.0	4148200	3142200	5154200	24.3	3.6	6.8
-40.0	2972400	2290100	3654700	23.0	3.4	6.7
-35.0	2139200	1674800	2603700	21.7	3.3	6.6
-30.0	1546700	1229300	1864100	20.5	3.2	6.4
-25.0	1121300	904030	1338600	19.4	3.1	6.3
-20.0	820800	670780	970820	18.3	3.0	6.2
-15.0	601490	497900	705080	17.2	2.9	6.0
-10.0	445030	372910	517160	16.2	2.8	5.9
-5.0	332200	281610	382780	15.2	2.7	5.7
0.0	250110	214380	285840	14.3	2.6	5.6
5.0	190020	164600	215440	13.4	2.5	5.5
10.0	145460	127280	163650	12.5	2.3	5.3
15.0	112250	99162	125330	11.7	2.2	5.2
20.0	87197	77746	96649	10.8	2.1	5.1
25.0	68000	61200	74800	10.0	2.0	4.9
30.0	53307	47543	59071	10.8	2.3	4.8
35.0	42039	37183	46896	11.6	2.5	4.7
40.0	33356	29264	37448	12.3	2.7	4.6
45.0	26599	23152	30046	13.0	2.9	4.5
50.0	21332	18424	24240	13.6	3.1	4.3
55.0	17230	14769	19691	14.3	3.4	4.2
60.0	13984	11899	16070	14.9	3.6	4.1
65.0	11398	9629	13168	15.5	3.8	4.1
70.0	9334	7829	10839	16.1	4.1	4.0
75.0	7669	6389	8950	16.7	4.3	3.9
80.0	6328	5236	7420	17.3	4.6	3.8
85.0	5248	4314	6182	17.8	4.8	3.7
90.0	4370	3569	5171	18.3	5.1	3.6
95.0	3650	2962	4338	18.9	5.3	3.5
100.0	3060	2468	3652	19.4	5.6	3.5
105.0	2578	2067	3090	19.8	5.8	3.4
110.0	2180	1737	2623	20.3	6.1	3.3
115.0	1847	1463	2231	20.8	6.4	3.3
120.0	1569	1236	1903	21.2	6.6	3.2
125.0	1338	1048	1628	21.7	6.9	3.1

Temperature measurement
B57164
Leaded NTCs, lead spacing 5 mm
K164

	B57164K0104J000					
R/T No.	2005					
T (°C)	B _{25/100} = 4600 K, R ₂₅ = 100000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 5%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	12022000	9374400	14670000	22.0	3.2	6.8
-50.0	8548000	6786600	10309000	20.6	3.0	6.8
-45.0	6100400	4926000	7274700	19.3	2.8	6.8
-40.0	4371200	3586400	5156000	18.0	2.7	6.7
-35.0	3145900	2620200	3671600	16.7	2.5	6.6
-30.0	2274600	1921600	2627600	15.5	2.4	6.4
-25.0	1649000	1411900	1886000	14.4	2.3	6.3
-20.0	1207100	1046800	1367300	13.3	2.1	6.2
-15.0	884550	776440	992660	12.2	2.0	6.0
-10.0	654460	581120	727800	11.2	1.9	5.9
-5.0	488520	438560	538490	10.2	1.8	5.7
0.0	367810	333650	401960	9.3	1.7	5.6
5.0	279440	256030	302850	8.4	1.5	5.5
10.0	213910	197870	229960	7.5	1.4	5.3
15.0	165070	154080	176060	6.7	1.3	5.2
20.0	128230	120740	135720	5.8	1.2	5.1
25.0	100000	95000	105000	5.0	1.0	4.9
30.0	78393	73836	82950	5.8	1.2	4.8
35.0	61822	57772	65873	6.6	1.4	4.7
40.0	49053	45489	52618	7.3	1.6	4.6
45.0	39116	36002	42229	8.0	1.8	4.5
50.0	31371	28663	34078	8.6	2.0	4.3
55.0	25338	22987	27690	9.3	2.2	4.2
60.0	20565	18527	22604	9.9	2.4	4.1
65.0	16762	14998	18526	10.5	2.6	4.1
70.0	13726	12200	15253	11.1	2.8	4.0
75.0	11279	9959	12598	11.7	3.0	3.9
80.0	9305	8165	10446	12.3	3.2	3.8
85.0	7718	6730	8706	12.8	3.5	3.7
90.0	6426	5569	7283	13.3	3.7	3.6
95.0	5368	4624	6111	13.9	3.9	3.5
100.0	4500	3854	5145	14.4	4.1	3.5
105.0	3792	3229	4354	14.8	4.4	3.4
110.0	3206	2715	3697	15.3	4.6	3.3
115.0	2716	2287	3145	15.8	4.8	3.3
120.0	2308	1933	2683	16.2	5.1	3.2
125.0	1968	1640	2296	16.7	5.3	3.1

B57164K0104K000						
R/T No.	2005					
T (°C)	B _{25/100} = 4600 K, R ₂₅ = 100000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 10%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	12022000	8773300	15271000	27.0	4.0	6.8
-50.0	8548000	6359200	10737000	25.6	3.8	6.8
-45.0	6100400	4621000	7579800	24.3	3.6	6.8
-40.0	4371200	3367900	5374600	23.0	3.4	6.7
-35.0	3145900	2462900	3828900	21.7	3.3	6.6
-30.0	2274600	1807900	2741300	20.5	3.2	6.4
-25.0	1649000	1329500	1968500	19.4	3.1	6.3
-20.0	1207100	986430	1427700	18.3	3.0	6.2
-15.0	884550	732210	1036900	17.2	2.9	6.0
-10.0	654460	548400	760530	16.2	2.8	5.9
-5.0	488520	414130	562920	15.2	2.7	5.7
0.0	367810	315260	420350	14.3	2.6	5.6
5.0	279440	242050	316820	13.4	2.5	5.5
10.0	213910	187170	240660	12.5	2.3	5.3
15.0	165070	145830	184310	11.7	2.2	5.2
20.0	128230	114330	142130	10.8	2.1	5.1
25.0	100000	90000	110000	10.0	2.0	4.9
30.0	78393	69916	86870	10.8	2.3	4.8
35.0	61822	54681	68964	11.6	2.5	4.7
40.0	49053	43036	55071	12.3	2.7	4.6
45.0	39116	34046	44185	13.0	2.9	4.5
50.0	31371	27094	35647	13.6	3.1	4.3
55.0	25338	21720	28957	14.3	3.4	4.2
60.0	20565	17498	23632	14.9	3.6	4.1
65.0	16762	14160	19365	15.5	3.8	4.1
70.0	13726	11514	15939	16.1	4.1	4.0
75.0	11279	9395	13162	16.7	4.3	3.9
80.0	9305	7699	10911	17.3	4.6	3.8
85.0	7718	6344	9092	17.8	4.8	3.7
90.0	6426	5248	7605	18.3	5.1	3.6
95.0	5368	4356	6380	18.9	5.3	3.5
100.0	4500	3629	5370	19.4	5.6	3.5
105.0	3792	3039	4544	19.8	5.8	3.4
110.0	3206	2555	3858	20.3	6.1	3.3
115.0	2716	2152	3281	20.8	6.4	3.3
120.0	2308	1818	2798	21.2	6.6	3.2
125.0	1968	1541	2395	21.7	6.9	3.1

Temperature measurement
B57164
Leaded NTCs, lead spacing 5 mm
K164

	B57164K0154J000					
R/T No.	2005					
T (°C)	B _{25/100} = 4600 K, R ₂₅ = 150000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 5%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	18033000	14062000	22005000	22.0	3.2	6.8
-50.0	12822000	10180000	15464000	20.6	3.0	6.8
-45.0	9150500	7389000	10912000	19.3	2.8	6.8
-40.0	6556900	5379600	7734100	18.0	2.7	6.7
-35.0	4718900	3930300	5507500	16.7	2.5	6.6
-30.0	3411900	2882400	3941400	15.5	2.4	6.4
-25.0	2473400	2117900	2829000	14.4	2.3	6.3
-20.0	1810600	1570200	2051000	13.3	2.1	6.2
-15.0	1326800	1164700	1489000	12.2	2.0	6.0
-10.0	981690	871680	1091700	11.2	1.9	5.9
-5.0	732790	657830	807740	10.2	1.8	5.7
0.0	551710	500480	602940	9.3	1.7	5.6
5.0	419150	384040	454270	8.4	1.5	5.5
10.0	320870	296800	344940	7.5	1.4	5.3
15.0	247600	231120	264080	6.7	1.3	5.2
20.0	192350	181120	203580	5.8	1.2	5.1
25.0	150000	142500	157500	5.0	1.0	4.9
30.0	117590	110750	124430	5.8	1.2	4.8
35.0	92733	86657	98809	6.6	1.4	4.7
40.0	73580	68233	78927	7.3	1.6	4.6
45.0	58673	54003	63344	8.0	1.8	4.5
50.0	47056	42995	51117	8.6	2.0	4.3
55.0	38008	34480	41535	9.3	2.2	4.2
60.0	30848	27790	33906	9.9	2.4	4.1
65.0	25143	22497	27790	10.5	2.6	4.1
70.0	20589	18300	22879	11.1	2.8	4.0
75.0	16918	14939	18897	11.7	3.0	3.9
80.0	13958	12247	15669	12.3	3.2	3.8
85.0	11577	10094	13059	12.8	3.5	3.7
90.0	9639	8354	10925	13.3	3.7	3.6
95.0	8052	6936	9167	13.9	3.9	3.5
100.0	6749	5781	7718	14.4	4.1	3.5
105.0	5688	4843	6532	14.8	4.4	3.4
110.0	4809	4073	5546	15.3	4.6	3.3
115.0	4074	3431	4717	15.8	4.8	3.3
120.0	3462	2900	4024	16.2	5.1	3.2
125.0	2952	2460	3444	16.7	5.3	3.1

B57164K0154K000						
R/T No.	2005					
T (°C)	B _{25/100} = 4600 K, R ₂₅ = 150000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 10%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	18033000	13160000	22906000	27.0	4.0	6.8
-50.0	12822000	9538700	16105000	25.6	3.8	6.8
-45.0	9150500	6931400	11370000	24.3	3.6	6.8
-40.0	6556900	5051800	8061900	23.0	3.4	6.7
-35.0	4718900	3694300	5743400	21.7	3.3	6.6
-30.0	3411900	2711800	4112000	20.5	3.2	6.4
-25.0	2473400	1994200	2952700	19.4	3.1	6.3
-20.0	1810600	1479700	2141500	18.3	3.0	6.2
-15.0	1326800	1098300	1555300	17.2	2.9	6.0
-10.0	981690	822600	1140800	16.2	2.8	5.9
-5.0	732790	621190	844380	15.2	2.7	5.7
0.0	551710	472890	630530	14.3	2.6	5.6
5.0	419150	363080	475230	13.4	2.5	5.5
10.0	320870	280750	360980	12.5	2.3	5.3
15.0	247600	218740	276460	11.7	2.2	5.2
20.0	192350	171500	213200	10.8	2.1	5.1
25.0	150000	135000	165000	10.0	2.0	4.9
30.0	117590	104870	130310	10.8	2.3	4.8
35.0	92733	82021	103450	11.6	2.5	4.7
40.0	73580	64554	82606	12.3	2.7	4.6
45.0	58673	51070	66277	13.0	2.9	4.5
50.0	47056	40642	53470	13.6	3.1	4.3
55.0	38008	32580	43436	14.3	3.4	4.2
60.0	30848	26247	35448	14.9	3.6	4.1
65.0	25143	21240	29047	15.5	3.8	4.1
70.0	20589	17271	23908	16.1	4.1	4.0
75.0	16918	14093	19743	16.7	4.3	3.9
80.0	13958	11549	16367	17.3	4.6	3.8
85.0	11577	9515	13638	17.8	4.8	3.7
90.0	9639	7872	11407	18.3	5.1	3.6
95.0	8052	6534	9569	18.9	5.3	3.5
100.0	6749	5443	8056	19.4	5.6	3.5
105.0	5688	4559	6816	19.8	5.8	3.4
110.0	4809	3832	5787	20.3	6.1	3.3
115.0	4074	3227	4921	20.8	6.4	3.3
120.0	3462	2727	4197	21.2	6.6	3.2
125.0	2952	2312	3592	21.7	6.9	3.1

Temperature measurement
B57164
Leaded NTCs, lead spacing 5 mm
K164

B57164K0224J000						
R/T No.	2007					
T (°C)	B _{25/100} = 4830 K, R ₂₅ = 220000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 5%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	40891000	31538000	50244000	22.9	2.7	8.4
-50.0	27110000	21313000	32908000	21.4	2.7	8.1
-45.0	18235000	14595000	21875000	20.0	2.6	7.8
-40.0	12440000	10126000	14753000	18.6	2.5	7.5
-35.0	8593400	7107200	10080000	17.3	2.4	7.3
-30.0	6010700	5046400	6975000	16.0	2.3	7.0
-25.0	4251800	3620700	4882800	14.8	2.2	6.8
-20.0	3041000	2624700	3457300	13.7	2.1	6.6
-15.0	2200300	1923500	2477100	12.6	2.0	6.4
-10.0	1607500	1422400	1792600	11.5	1.8	6.2
-5.0	1176000	1052700	1299300	10.5	1.7	6.1
0.0	868650	786150	951160	9.5	1.6	5.9
5.0	651090	595460	706720	8.5	1.5	5.7
10.0	491880	454380	529390	7.6	1.4	5.6
15.0	374010	348820	399210	6.7	1.2	5.4
20.0	286460	269620	303300	5.9	1.1	5.3
25.0	220000	209000	231000	5.0	1.0	5.2
30.0	170630	160650	180620	5.9	1.2	5.0
35.0	133120	124290	141940	6.6	1.4	4.9
40.0	104500	96785	112200	7.4	1.5	4.8
45.0	82574	75881	89266	8.1	1.7	4.7
50.0	65610	59830	71390	8.8	1.9	4.6
55.0	52279	47316	57242	9.5	2.1	4.5
60.0	41891	37636	46145	10.2	2.3	4.4
65.0	33782	30134	37430	10.8	2.5	4.3
70.0	27372	24246	30499	11.4	2.7	4.2
75.0	22289	19607	24970	12.0	3.0	4.1
80.0	18229	15929	20529	12.6	3.2	4.0
85.0	14961	12987	16934	13.2	3.4	3.9
90.0	12327	10632	14022	13.7	3.6	3.8
95.0	10203	8745	11662	14.3	3.8	3.7
100.0	8477	7221	9733	14.8	4.0	3.7
105.0	7077	5992	8162	15.3	4.3	3.6
110.0	5929	4991	6868	15.8	4.5	3.5
115.0	4985	4171	5798	16.3	4.7	3.4
120.0	4205	3498	4911	16.8	5.0	3.4
125.0	3564	2949	4179	17.3	5.2	3.3

B57164K0224K000						
R/T No.	2007					
T (°C)	B _{25/100} = 4830 K, R ₂₅ = 220000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 10%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	40891000	29494000	52289000	27.9	3.3	8.4
-50.0	27110000	19957000	34263000	26.4	3.3	8.1
-45.0	18235000	13684000	22787000	25.0	3.2	7.8
-40.0	12440000	9504100	15375000	23.6	3.1	7.5
-35.0	8593400	6677600	10509000	22.3	3.1	7.3
-30.0	6010700	4745900	7275600	21.0	3.0	7.0
-25.0	4251800	3408100	5095400	19.8	2.9	6.8
-20.0	3041000	2472600	3609300	18.7	2.8	6.6
-15.0	2200300	1813500	2587100	17.6	2.7	6.4
-10.0	1607500	1342000	1872900	16.5	2.6	6.2
-5.0	1176000	993860	1358100	15.5	2.6	6.1
0.0	868650	742720	994590	14.5	2.5	5.9
5.0	651090	562900	739280	13.5	2.4	5.7
10.0	491880	429780	553980	12.6	2.3	5.6
15.0	374010	330120	417910	11.7	2.2	5.4
20.0	286460	255290	317620	10.9	2.1	5.3
25.0	220000	198000	242000	10.0	1.9	5.2
30.0	170630	152120	189150	10.9	2.2	5.0
35.0	133120	117640	148590	11.6	2.4	4.9
40.0	104500	91560	117430	12.4	2.6	4.8
45.0	82574	71752	93395	13.1	2.8	4.7
50.0	65610	56550	74671	13.8	3.0	4.6
55.0	52279	44702	59856	14.5	3.3	4.5
60.0	41891	35542	48239	15.2	3.5	4.4
65.0	33782	28445	39119	15.8	3.7	4.3
70.0	27372	22877	31868	16.4	3.9	4.2
75.0	22289	18493	26084	17.0	4.2	4.1
80.0	18229	15017	21441	17.6	4.4	4.0
85.0	14961	12239	17682	18.2	4.7	3.9
90.0	12327	10016	14638	18.7	4.9	3.8
95.0	10203	8235	12172	19.3	5.2	3.7
100.0	8477	6797	10157	19.8	5.4	3.7
105.0	7077	5638	8516	20.3	5.7	3.6
110.0	5929	4694	7165	20.8	5.9	3.5
115.0	4985	3922	6048	21.3	6.2	3.4
120.0	4205	3288	5121	21.8	6.5	3.4
125.0	3564	2771	4358	22.3	6.7	3.3

Temperature measurement
B57164
Leaded NTCs, lead spacing 5 mm
K164

B57164K0334J000						
R/T No.	2006					
T (°C)	B _{25/100} = 5000 K, R ₂₅ = 330000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 5%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	66183000	50630000	81736000	23.5	2.7	8.7
-50.0	43235000	33741000	52729000	22.0	2.6	8.3
-45.0	28767000	22873000	34660000	20.5	2.6	7.9
-40.0	19466000	15753000	23180000	19.1	2.5	7.6
-35.0	13380000	11008000	15751000	17.7	2.4	7.3
-30.0	9329800	7796900	10863000	16.4	2.3	7.1
-25.0	6599100	5596900	7601300	15.2	2.2	6.9
-20.0	4716400	4056400	5376400	14.0	2.1	6.7
-15.0	3415500	2976700	3854200	12.8	2.0	6.5
-10.0	2495300	2202300	2788200	11.7	1.9	6.3
-5.0	1826300	1631300	2021300	10.7	1.7	6.1
0.0	1348400	1218200	1478600	9.7	1.6	6.0
5.0	1002300	915460	1089200	8.7	1.5	5.8
10.0	751080	693130	809030	7.7	1.4	5.7
15.0	567210	528670	605760	6.8	1.2	5.5
20.0	431440	405950	456930	5.9	1.1	5.4
25.0	330000	313500	346500	5.0	0.9	5.3
30.0	254060	239120	269000	5.9	1.1	5.2
35.0	196480	183350	209610	6.7	1.3	5.1
40.0	152930	141520	164330	7.5	1.5	4.9
45.0	119880	110030	129720	8.2	1.7	4.8
50.0	94500	86050	102950	8.9	1.9	4.7
55.0	74646	67443	81849	9.6	2.1	4.6
60.0	59313	53183	65443	10.3	2.3	4.5
65.0	47453	42232	52673	11.0	2.5	4.4
70.0	38147	33703	42590	11.6	2.7	4.3
75.0	30788	27009	34567	12.3	2.9	4.2
80.0	24955	21740	28171	12.9	3.1	4.1
85.0	20334	17593	23075	13.5	3.3	4.1
90.0	16637	14298	18975	14.1	3.5	4.0
95.0	13705	11702	15709	14.6	3.8	3.9
100.0	11337	9618	13056	15.2	4.0	3.8
105.0	9413	7936	10891	15.7	4.2	3.7
110.0	7845	6574	9117	16.2	4.5	3.6
115.0	6551	5456	7646	16.7	4.7	3.6
120.0	5489	4544	6433	17.2	4.9	3.5
125.0	4625	3807	5443	17.7	5.2	3.4

B57164K0334K000						
R/T No.	2006					
T (°C)	B _{25/100} = 5000 K, R ₂₅ = 330000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 10%					
	R _{nomL} [Ω]	R _{minL} [Ω]	R _{maxL} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	66183000	47321000	85045000	28.5	3.3	8.7
-50.0	43235000	31579000	54891000	27.0	3.3	8.3
-45.0	28767000	21435000	36098000	25.5	3.2	7.9
-40.0	19466000	14779000	24153000	24.1	3.2	7.6
-35.0	13380000	10339000	16420000	22.7	3.1	7.3
-30.0	9329800	7330400	11329000	21.4	3.0	7.1
-25.0	6599100	5266900	7931300	20.2	2.9	6.9
-20.0	4716400	3820600	5612200	19.0	2.9	6.7
-15.0	3415500	2806000	4025000	17.8	2.8	6.5
-10.0	2495300	2077500	2913000	16.7	2.7	6.3
-5.0	1826300	1540000	2112700	15.7	2.6	6.1
0.0	1348400	1150800	1546000	14.7	2.5	6.0
5.0	1002300	865340	1139300	13.7	2.3	5.8
10.0	751080	655580	846580	12.7	2.2	5.7
15.0	567210	500310	634120	11.8	2.1	5.5
20.0	431440	384370	478500	10.9	2.0	5.4
25.0	330000	297000	363000	10.0	1.9	5.3
30.0	254060	226420	281700	10.9	2.1	5.2
35.0	196480	173530	219440	11.7	2.3	5.1
40.0	152930	133870	171980	12.5	2.5	4.9
45.0	119880	104040	135720	13.2	2.7	4.8
50.0	94500	81325	107680	13.9	2.9	4.7
55.0	74646	63711	85581	14.6	3.2	4.6
60.0	59313	50217	68409	15.3	3.4	4.5
65.0	47453	39860	55046	16.0	3.6	4.4
70.0	38147	31796	44497	16.6	3.8	4.3
75.0	30788	25469	36107	17.3	4.1	4.2
80.0	24955	20492	29419	17.9	4.3	4.1
85.0	20334	16577	24092	18.5	4.6	4.1
90.0	16637	13467	19807	19.1	4.8	4.0
95.0	13705	11017	16394	19.6	5.1	3.9
100.0	11337	9051	13623	20.2	5.3	3.8
105.0	9413	7465	11361	20.7	5.6	3.7
110.0	7845	6181	9510	21.2	5.8	3.6
115.0	6551	5128	7974	21.7	6.1	3.6
120.0	5489	4270	6707	22.2	6.4	3.5
125.0	4625	3576	5675	22.7	6.6	3.4

Temperature measurement
B57164
Leaded NTCs, lead spacing 5 mm
K164

	B57164K0474J000					
R/T No.	2006					
T (°C)	B _{25/100} = 5000 K, R ₂₅ = 470000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 5%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	94260000	72109000	116410000	23.5	2.7	8.7
-50.0	61577000	48056000	75099000	22.0	2.6	8.3
-45.0	40971000	32577000	49364000	20.5	2.6	7.9
-40.0	27725000	22436000	33013000	19.1	2.5	7.6
-35.0	19056000	15678000	22434000	17.7	2.4	7.3
-30.0	13288000	11105000	15471000	16.4	2.3	7.1
-25.0	9398700	7971300	10826000	15.2	2.2	6.9
-20.0	6717300	5777300	7657300	14.0	2.1	6.7
-15.0	4864500	4239600	5489300	12.8	2.0	6.5
-10.0	3553900	3136600	3971100	11.7	1.9	6.3
-5.0	2601100	2323400	2878900	10.7	1.7	6.1
0.0	1920400	1735000	2105900	9.7	1.6	6.0
5.0	1427600	1303800	1551300	8.7	1.5	5.8
10.0	1069700	987190	1152200	7.7	1.4	5.7
15.0	807850	752950	862750	6.8	1.2	5.5
20.0	614470	578170	650770	5.9	1.1	5.4
25.0	470000	446500	493500	5.0	0.9	5.3
30.0	361840	340570	383120	5.9	1.1	5.2
35.0	279840	261140	298540	6.7	1.3	5.1
40.0	217800	201560	234050	7.5	1.5	4.9
45.0	170740	156710	184760	8.2	1.7	4.8
50.0	134590	122560	146630	8.9	1.9	4.7
55.0	106310	96055	116570	9.6	2.1	4.6
60.0	84476	75745	93207	10.3	2.3	4.5
65.0	67584	60149	75019	11.0	2.5	4.4
70.0	54330	48002	60658	11.6	2.7	4.3
75.0	43849	38467	49232	12.3	2.9	4.2
80.0	35543	30963	40122	12.9	3.1	4.1
85.0	28961	25057	32864	13.5	3.3	4.1
90.0	23695	20364	27025	14.1	3.5	4.0
95.0	19520	16667	22373	14.6	3.8	3.9
100.0	16147	13699	18595	15.2	4.0	3.8
105.0	13407	11303	15511	15.7	4.2	3.7
110.0	11174	9362	12985	16.2	4.5	3.6
115.0	9330	7771	10890	16.7	4.7	3.6
120.0	7817	6472	9162	17.2	4.9	3.5
125.0	6587	5422	7753	17.7	5.2	3.4

	B57164K0474K000					
R/T No.	2006					
T (°C)	$B_{25/100} = 5000 \text{ K}$, $R_{25} = 470000 \text{ } \Omega$, $T_R = 25 \text{ } ^\circ\text{C}$, $\Delta R_R/R_R = \pm 10\%$					
	$R_{nom}[\Omega]$	$R_{min}[\Omega]$	$R_{max}[\Omega]$	$\Delta R_R/R_R[\pm\%]$	$\Delta T[\pm^\circ\text{C}]$	$\alpha (\%/K)$
-55.0	94260000	67396000	121120000	28.5	3.3	8.7
-50.0	61577000	44977000	78178000	27.0	3.3	8.3
-45.0	40971000	30529000	51412000	25.5	3.2	7.9
-40.0	27725000	21050000	34399000	24.1	3.2	7.6
-35.0	19056000	14725000	23387000	22.7	3.1	7.3
-30.0	13288000	10440000	16135000	21.4	3.0	7.1
-25.0	9398700	7501400	11296000	20.2	2.9	6.9
-20.0	6717300	5441500	7993100	19.0	2.9	6.7
-15.0	4864500	3996400	5732600	17.8	2.8	6.5
-10.0	3553900	2958900	4148800	16.7	2.7	6.3
-5.0	2601100	2193300	3008900	15.7	2.6	6.1
0.0	1920400	1639000	2201900	14.7	2.5	6.0
5.0	1427600	1232500	1622700	13.7	2.3	5.8
10.0	1069700	933700	1205700	12.7	2.2	5.7
15.0	807850	712560	903140	11.8	2.1	5.5
20.0	614470	547440	681500	10.9	2.0	5.4
25.0	470000	423000	517000	10.0	1.9	5.3
30.0	361840	322480	401210	10.9	2.1	5.2
35.0	279840	247140	312530	11.7	2.3	5.1
40.0	217800	190670	244940	12.5	2.5	4.9
45.0	170740	148180	193300	13.2	2.7	4.8
50.0	134590	115830	153360	13.9	2.9	4.7
55.0	106310	90739	121890	14.6	3.2	4.6
60.0	84476	71521	97431	15.3	3.4	4.5
65.0	67584	56770	78398	16.0	3.6	4.4
70.0	54330	45285	63375	16.6	3.8	4.3
75.0	43849	36274	51424	17.3	4.1	4.2
80.0	35543	29186	41900	17.9	4.3	4.1
85.0	28961	23609	34312	18.5	4.6	4.1
90.0	23695	19180	28210	19.1	4.8	4.0
95.0	19520	15691	23349	19.6	5.1	3.9
100.0	16147	12891	19402	20.2	5.3	3.8
105.0	13407	10632	16181	20.7	5.6	3.7
110.0	11174	8804	13544	21.2	5.8	3.6
115.0	9330	7304	11356	21.7	6.1	3.6
120.0	7817	6081	9553	22.2	6.4	3.5
125.0	6587	5093	8082	22.7	6.6	3.4

Cautions and warnings

General

See "Important notes" at the end of this document.

Storage

- Store thermistors only in original packaging. Do not open the package before storage.
- Storage conditions in original packaging: storage temperature $-25\text{ °C} \dots +45\text{ °C}$, relative humidity $\leq 75\%$ annual mean, maximum 95%, dew precipitation is inadmissible.
- Do not store SMDs where they are exposed to heat or direct sunlight. Otherwise, the packing material may be deformed or SMDs may stick together, causing problems during mounting.
- Avoid contamination of thermistors surface during storage, handling and processing.
- Avoid storage of thermistor in harmful environments like corrosive gases (SO_x, Cl etc).
- After opening the factory seals, such as polyvinyl-sealed packages, use the SMDs as soon as possible.
- Solder thermistors after shipment from EPCOS within the time specified:
SMDs: 12 months
Leaded components: 24 months

Handling

- NTC thermistors must not be dropped. Chip-offs must not be caused during handling of NTCs.
- Components must not be touched with bare hands. Gloves are recommended.
- Avoid contamination of thermistor surface during handling.

Soldering

- Use resin-type flux or non-activated flux.
- Insufficient preheating may cause ceramic cracks.
- Rapid cooling by dipping in solvent is not recommended.
- Complete removal of flux is recommended.

Mounting

- When NTC thermistors are encapsulated with sealing material or overmolded with plastic material, the precautions given in chapter "Mounting instructions", "Sealing, potting and overmolding" must be observed.
- Electrode must not be scratched before/during/after the mounting process.
- Contacts and housings used for assembly with thermistor have to be clean before mounting.
- During operation, the thermistor's surface temperature can be very high (ICL). Ensure that adjacent components are placed at a sufficient distance from the thermistor to allow for proper cooling of the thermistors.
- Ensure that adjacent materials are designed for operation at temperatures comparable to the surface temperature of the thermistor. Be sure that surrounding parts and materials can withstand this temperature.
- Make sure that thermistors (ICLs) are adequately ventilated to avoid overheating.
- Avoid contamination of thermistor surface during processing.

Operation

- Use thermistors only within the specified operating temperature range.
- Use thermistors only within the specified voltage and current ranges (ICLs).
- Environmental conditions must not harm the thermistors. Use thermistors only in normal atmospheric conditions.
- Contact of NTC thermistors with any liquids and solvents should be prevented. It must be ensured that no water enters the NTC thermistor (e.g. through plug terminals). For measurement purposes (checking the specified resistance vs. temperature), the component must not be immersed in water but in suitable liquids (e.g. Galden).
- Avoid dewing and condensation.
- Be sure to provide an appropriate fail-safe function to prevent secondary product damage caused by malfunction (e.g. use VDR for limitation of overvoltage condition).

Important notes

The following applies to all products named in this publication:

1. Some parts of this publication contain **statements about the suitability of our products for certain areas of application**. These statements are based on our knowledge of typical requirements that are often placed on our products in the areas of application concerned. We nevertheless expressly point out **that such statements cannot be regarded as binding statements about the suitability of our products for a particular customer application**. As a rule, EPCOS is either unfamiliar with individual customer applications or less familiar with them than the customers themselves. For these reasons, it is always ultimately incumbent on the customer to check and decide whether an EPCOS product with the properties described in the product specification is suitable for use in a particular customer application.
2. We also point out that **in individual cases, a malfunction of passive electronic components or failure before the end of their usual service life cannot be completely ruled out in the current state of the art, even if they are operated as specified**. In customer applications requiring a very high level of operational safety and especially in customer applications in which the malfunction or failure of a passive electronic component could endanger human life or health (e.g. in accident prevention or life-saving systems), it must therefore be ensured by means of suitable design of the customer application or other action taken by the customer (e.g. installation of protective circuitry or redundancy) that no injury or damage is sustained by third parties in the event of malfunction or failure of a passive electronic component.
3. **The warnings, cautions and product-specific notes must be observed.**
4. In order to satisfy certain technical requirements, **some of the products described in this publication may contain substances subject to restrictions in certain jurisdictions (e.g. because they are classed as “hazardous”)**. Useful information on this will be found in our Material Data Sheets on the Internet (www.epcos.com/material). Should you have any more detailed questions, please contact our sales offices.
5. We constantly strive to improve our products. Consequently, **the products described in this publication may change from time to time**. The same is true of the corresponding product specifications. Please check therefore to what extent product descriptions and specifications contained in this publication are still applicable before or when you place an order.
We also **reserve the right to discontinue production and delivery of products**. Consequently, we cannot guarantee that all products named in this publication will always be available.
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