



NTC thermistors for temperature measurement

SMD NTC thermistors
with nickel barrier termination,
case size 0603

Series/Type: B573**V2
Date: June 2008

SMD
Applications

- Temperature measurement and compensation

Features

- Multilayer SMD NTC with inner electrodes
- Excellent long-term ageing stability in high-temperature and high-humidity environment
- Superior resistance stability during soldering (change <1%)

Options

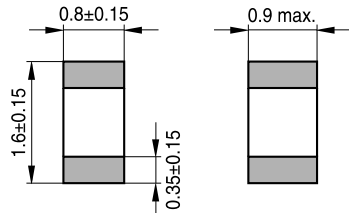
Alternative resistance ratings, resistance tolerance and B value tolerances available on request

Delivery mode

Cardboard tape, 180-mm reel (standard);
330-mm reel (on request)

General technical data

Climatic category	(IEC 60068-1)		55/125/56	
Max. power	(at 25 °C, on PCB)	$P_{25}^{(1)}$	180	mW
Resistance tolerance		$\Delta R_R/R_R$	$\pm 3, \pm 5$	%
Rated temperature		T_R	25	°C
Dissipation factor	(on PCB)	$\delta_{th}^{(1)}$	approx. 3	mW/K
Thermal cooling time constant	(on PCB)	$\tau_c^{(1)}$	approx. 4	s
Heat capacity		$C_{th}^{(1)}$	approx. 12	mJ/K

Dimensional drawing


■ Termination

TNT0396-Y-E

Dimensions in mm
Approx. weight 6 mg

1) Depends on mounting situation

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Electrical specification and ordering codes

R ₂₅ Ω	No. of R/T characteristic	B _{25/50} K	B _{25/85} K	B _{25/100} K	Ordering code
100	8501	3500	3540	3550 ±3%	B57311V2101+060
150	8501	3500	3540	3550 ±3%	B57311V2151+060
220	8501	3500	3540	3550 ±3%	B57311V2221+060
330	8501	3500	3540	3550 ±3%	B57311V2331+060
680	8502	3940	3980	4000 ±3%	B57321V2681+060
1.0 k	8502	3940	3980	4000 ±3%	B57321V2102+060
1.5 k	8502	3940	3980	4000 ±3%	B57321V2152+060
2.2 k	8502	3940	3980	4000 ±3%	B57321V2222+060
4.7 k	8500	3590	3635	3650 ±3%	B57301V2472+060
6.8 k	8507	4386	4455	4480 ±3%	B57371V2682+060
10 k	8502	3940	3980	4000 ±3%	B57321V2103+060
10 k	8507	4386	4455	4480 ±3%	B57371V2103+060
22 k	8502	3940	3980	4000 ±3%	B57321V2223+060
22 k	8507	4386	4455	4480 ±3%	B57371V2223+060
47 k	8502	3940	3980	4000 ±3%	B57321V2473+060
47 k	8507	4386	4455	4480 ±3%	B57371V2473+060
68 k	8507	4386	4455	4480 ±3%	B57371V2683+060
100 k	8507	4386	4455	4480 ±3%	B57371V2104+060
470 k	8507	4386	4455	4480 ±3%	B57371V2474+060

+ = Resistance tolerance

H = ±3%

J = ±5%

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Reliability data

SMD NTC thermistors are tested in accordance with IEC 60068. The parts are mounted on a standardized PCB in accordance with IEC 60539-1.

Test	Standard	Test conditions	$\Delta R_{25}/R_{25}$ (typical)	Remarks
Storage in dry heat	IEC 60068-2-2 JIS C 0021	Storage at upper category temperature T: (125 ±2) °C t: 1000 h	< 2%	
Storage in damp heat, steady state	IEC 60068-2-78 JIS C 0022	Temperature of air: (40 ±2) °C Relative humidity of air: (93 +2/−3)% Duration: 56 days	< 2%	
Rapid temperature cycling	IEC 60068-2-14 JIS C 0025	Lower test temperature: −55 °C Upper test temperature: 125 °C Number of cycles: 100	< 2%	
Endurance		P_{max} : 180 mW T: (65 ±2) °C t: 1000 h	< 2%	
Solderability	IEC 60068-2-58 JIS C 0054	Solderability: (215 ±3) °C, (3 ±0.3) s (235 ±5) °C, (2 ±0.2) s Resistance to soldering heat: (260 ±5) °C, (10 ±1) s		95% of terminations wetted
Resistance drift after soldering		Reflow soldering profile Wave soldering profile	< 1%	

SMD
R/T characteristics

B57311V2101H060						
R/T No.	8501					
T (°C)	B _{25/100} = 3550 K, R ₂₅ = 100 Ω, T _R = 25 °C, ΔR _R /R _R = ± 3%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	5663	4749	6578	16.1	2.5	6.5
-50.0	4113	3494	4733	15.1	2.4	6.3
-45.0	3021	2598	3444	14.0	2.3	6.1
-40.0	2242	1950	2534	13.0	2.2	5.9
-35.0	1681	1478	1883	12.0	2.1	5.7
-30.0	1272	1130	1414	11.1	2.0	5.5
-25.0	971.6	872.0	1071	10.2	1.9	5.3
-20.0	748.5	678.2	818.9	9.4	1.8	5.1
-15.0	581.5	531.6	631.4	8.6	1.7	5.0
-10.0	455.4	419.8	490.9	7.8	1.6	4.8
-5.0	359.3	334.0	384.6	7.0	1.5	4.7
0.0	285.6	267.5	303.6	6.3	1.4	4.5
5.0	228.6	215.7	241.4	5.6	1.3	4.4
10.0	184.2	175.1	193.3	4.9	1.2	4.3
15.0	149.3	142.9	155.7	4.3	1.0	4.1
20.0	121.8	117.4	126.3	3.7	0.9	4.0
25.0	100.00	97.00	103.0	3.0	0.8	3.9
30.0	82.54	79.53	85.54	3.6	1.0	3.8
35.0	68.49	65.61	71.38	4.2	1.1	3.7
40.0	57.14	54.42	59.86	4.8	1.3	3.6
45.0	47.91	45.37	50.44	5.3	1.5	3.5
50.0	40.36	38.01	42.70	5.8	1.7	3.4
55.0	34.16	32.00	36.32	6.3	1.9	3.3
60.0	29.04	27.06	31.02	6.8	2.1	3.2
65.0	24.80	22.99	26.60	7.3	2.3	3.1
70.0	21.26	19.61	22.90	7.7	2.5	3.0
75.0	18.30	16.80	19.80	8.2	2.8	3.0
80.0	15.81	14.45	17.17	8.6	3.0	2.9
85.0	13.71	12.48	14.95	9.0	3.2	2.8
90.0	11.94	10.81	13.07	9.4	3.4	2.7
95.0	10.43	9.401	11.45	9.8	3.7	2.7
100.0	9.137	8.203	10.07	10.2	3.9	2.6
105.0	8.033	7.181	8.885	10.6	4.2	2.5
110.0	7.085	6.307	7.862	11.0	4.4	2.5
115.0	6.267	5.556	6.977	11.3	4.7	2.4
120.0	5.559	4.910	6.209	11.7	4.9	2.4
125.0	4.945	4.351	5.540	12.0	5.2	2.3

SMD
R/T characteristics

B57311V2101J060						
R/T No.	8501					
T (°C)	B _{25/100} = 3550 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	5663	4635	6691	18.1	2.8	6.5
-50.0	4113	3412	4815	17.1	2.7	6.3
-45.0	3021	2537	3504	16.0	2.6	6.1
-40.0	2242	1906	2579	15.0	2.6	5.9
-35.0	1681	1445	1917	14.0	2.5	5.7
-30.0	1272	1105	1439	13.1	2.4	5.5
-25.0	971.6	852.6	1091	12.2	2.3	5.3
-20.0	748.5	663.2	833.9	11.4	2.2	5.1
-15.0	581.5	520.0	643.1	10.6	2.1	5.0
-10.0	455.4	410.7	500.0	9.8	2.0	4.8
-5.0	359.3	326.8	391.8	9.0	1.9	4.7
0.0	285.6	261.8	309.3	8.3	1.8	4.5
5.0	228.6	211.2	246.0	7.6	1.7	4.4
10.0	184.2	171.4	196.9	6.9	1.6	4.3
15.0	149.3	139.9	158.7	6.3	1.5	4.1
20.0	121.8	114.9	128.7	5.7	1.4	4.0
25.0	100.00	95.00	105.0	5.0	1.3	3.9
30.0	82.54	77.88	87.19	5.6	1.5	3.8
35.0	68.49	64.24	72.75	6.2	1.7	3.7
40.0	57.14	53.28	61.00	6.8	1.9	3.6
45.0	47.91	44.41	51.40	7.3	2.1	3.5
50.0	40.36	37.20	43.51	7.8	2.3	3.4
55.0	34.16	31.32	37.00	8.3	2.5	3.3
60.0	29.04	26.48	31.60	8.8	2.7	3.2
65.0	24.80	22.50	27.10	9.3	3.0	3.1
70.0	21.26	19.19	23.33	9.7	3.2	3.0
75.0	18.30	16.44	20.16	10.2	3.4	3.0
80.0	15.81	14.13	17.49	10.6	3.7	2.9
85.0	13.71	12.20	15.23	11.0	3.9	2.8
90.0	11.94	10.57	13.30	11.4	4.2	2.7
95.0	10.43	9.192	11.66	11.8	4.4	2.7
100.0	9.137	8.020	10.25	12.2	4.7	2.6
105.0	8.033	7.021	9.046	12.6	5.0	2.5
110.0	7.085	6.165	8.004	13.0	5.2	2.5
115.0	6.267	5.431	7.102	13.3	5.5	2.4
120.0	5.559	4.799	6.320	13.7	5.8	2.4
125.0	4.945	4.252	5.639	14.0	6.1	2.3

SMD
R/T characteristics

B57311V2151H060						
R/T No.	8501					
T (°C)	B _{25/100} = 3550 K, R ₂₅ = 150 Ω, T _R = 25 °C, ΔR _R /R _R = ± 3%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	8495	7123	9867	16.1	2.5	6.5
-50.0	6170	5241	7099	15.1	2.4	6.3
-45.0	4531	3896	5166	14.0	2.3	6.1
-40.0	3363	2926	3800	13.0	2.2	5.9
-35.0	2521	2217	2825	12.0	2.1	5.7
-30.0	1908	1696	2120	11.1	2.0	5.5
-25.0	1457	1308	1607	10.2	1.9	5.3
-20.0	1123	1017	1228	9.4	1.8	5.1
-15.0	872.3	797.4	947.2	8.6	1.7	5.0
-10.0	683.1	629.8	736.3	7.8	1.6	4.8
-5.0	539.0	501.0	576.9	7.0	1.5	4.7
0.0	428.4	401.3	455.4	6.3	1.4	4.5
5.0	342.9	323.6	362.1	5.6	1.3	4.4
10.0	276.2	262.6	289.9	4.9	1.2	4.3
15.0	224.0	214.4	233.6	4.3	1.0	4.1
20.0	182.8	176.1	189.5	3.7	0.9	4.0
25.0	150.0	145.5	154.5	3.0	0.8	3.9
30.0	123.8	119.3	128.3	3.6	1.0	3.8
35.0	102.7	98.42	107.1	4.2	1.1	3.7
40.0	85.71	81.63	89.79	4.8	1.3	3.6
45.0	71.86	68.05	75.66	5.3	1.5	3.5
50.0	60.54	57.02	64.06	5.8	1.7	3.4
55.0	51.24	48.00	54.47	6.3	1.9	3.3
60.0	43.56	40.60	46.52	6.8	2.1	3.2
65.0	37.19	34.49	39.90	7.3	2.3	3.1
70.0	31.89	29.42	34.35	7.7	2.5	3.0
75.0	27.45	25.20	29.69	8.2	2.8	3.0
80.0	23.72	21.68	25.76	8.6	3.0	2.9
85.0	20.57	18.71	22.43	9.0	3.2	2.8
90.0	17.91	16.22	19.60	9.4	3.4	2.7
95.0	15.64	14.10	17.18	9.8	3.7	2.7
100.0	13.71	12.30	15.11	10.2	3.9	2.6
105.0	12.05	10.77	13.33	10.6	4.2	2.5
110.0	10.63	9.461	11.79	11.0	4.4	2.5
115.0	9.400	8.335	10.47	11.3	4.7	2.4
120.0	8.339	7.365	9.313	11.7	4.9	2.4
125.0	7.418	6.526	8.310	12.0	5.2	2.3

SMD
R/T characteristics

B57311V2151J060						
R/T No.	8501					
T (°C)	B _{25/100} = 3550 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	8495	6953	10037	18.1	2.8	6.5
-50.0	6170	5118	7222	17.1	2.7	6.3
-45.0	4531	3806	5257	16.0	2.6	6.1
-40.0	3363	2858	3868	15.0	2.6	5.9
-35.0	2521	2167	2875	14.0	2.5	5.7
-30.0	1908	1658	2159	13.1	2.4	5.5
-25.0	1457	1279	1636	12.2	2.3	5.3
-20.0	1123	994.8	1251	11.4	2.2	5.1
-15.0	872.3	779.9	964.6	10.6	2.1	5.0
-10.0	683.1	616.1	750.0	9.8	2.0	4.8
-5.0	539.0	490.2	587.7	9.0	1.9	4.7
0.0	428.4	392.7	464.0	8.3	1.8	4.5
5.0	342.9	316.7	369.0	7.6	1.7	4.4
10.0	276.2	257.1	295.4	6.9	1.6	4.3
15.0	224.0	209.9	238.1	6.3	1.5	4.1
20.0	182.8	172.4	193.1	5.7	1.4	4.0
25.0	150.0	142.5	157.5	5.0	1.3	3.9
30.0	123.8	116.8	130.8	5.6	1.5	3.8
35.0	102.7	96.36	109.1	6.2	1.7	3.7
40.0	85.71	79.91	91.50	6.8	1.9	3.6
45.0	71.86	66.62	77.10	7.3	2.1	3.5
50.0	60.54	55.81	65.27	7.8	2.3	3.4
55.0	51.24	46.98	55.50	8.3	2.5	3.3
60.0	43.56	39.73	47.39	8.8	2.7	3.2
65.0	37.19	33.74	40.64	9.3	3.0	3.1
70.0	31.89	28.78	34.99	9.7	3.2	3.0
75.0	27.45	24.65	30.24	10.2	3.4	3.0
80.0	23.72	21.20	26.24	10.6	3.7	2.9
85.0	20.57	18.30	22.84	11.0	3.9	2.8
90.0	17.91	15.86	19.96	11.4	4.2	2.7
95.0	15.64	13.79	17.49	11.8	4.4	2.7
100.0	13.71	12.03	15.38	12.2	4.7	2.6
105.0	12.05	10.53	13.57	12.6	5.0	2.5
110.0	10.63	9.248	12.01	13.0	5.2	2.5
115.0	9.400	8.147	10.65	13.3	5.5	2.4
120.0	8.339	7.198	9.480	13.7	5.8	2.4
125.0	7.418	6.378	8.458	14.0	6.1	2.3

SMD
R/T characteristics

B57311V2221H060						
R/T No.	8501					
T (°C)	B _{25/100} = 3550 K, R ₂₅ = 220 Ω, T _R = 25 °C, ΔR _R /R _R = ± 3%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	12459	10447	14471	16.1	2.5	6.5
-50.0	9049	7687	10412	15.1	2.4	6.3
-45.0	6646	5715	7577	14.0	2.3	6.1
-40.0	4932	4291	5574	13.0	2.2	5.9
-35.0	3698	3252	4143	12.0	2.1	5.7
-30.0	2799	2487	3110	11.1	2.0	5.5
-25.0	2137	1918	2356	10.2	1.9	5.3
-20.0	1647	1492	1802	9.4	1.8	5.1
-15.0	1279	1170	1389	8.6	1.7	5.0
-10.0	1002	923.7	1080	7.8	1.6	4.8
-5.0	790.5	734.8	846.2	7.0	1.5	4.7
0.0	628.3	588.6	668.0	6.3	1.4	4.5
5.0	502.9	474.6	531.1	5.6	1.3	4.4
10.0	405.2	385.1	425.2	4.9	1.2	4.3
15.0	328.5	314.5	342.6	4.3	1.0	4.1
20.0	268.1	258.2	277.9	3.7	0.9	4.0
25.0	220.0	213.4	226.6	3.0	0.8	3.9
30.0	181.6	175.0	188.2	3.6	1.0	3.8
35.0	150.7	144.3	157.0	4.2	1.1	3.7
40.0	125.7	119.7	131.7	4.8	1.3	3.6
45.0	105.4	99.81	111.0	5.3	1.5	3.5
50.0	88.79	83.63	93.95	5.8	1.7	3.4
55.0	75.15	70.40	79.89	6.3	1.9	3.3
60.0	63.89	59.54	68.23	6.8	2.1	3.2
65.0	54.55	50.58	58.52	7.3	2.3	3.1
70.0	46.77	43.15	50.39	7.7	2.5	3.0
75.0	40.26	36.97	43.55	8.2	2.8	3.0
80.0	34.79	31.79	37.78	8.6	3.0	2.9
85.0	30.17	27.45	32.90	9.0	3.2	2.8
90.0	26.26	23.78	28.74	9.4	3.4	2.7
95.0	22.94	20.68	25.20	9.8	3.7	2.7
100.0	20.10	18.05	22.16	10.2	3.9	2.6
105.0	17.67	15.80	19.55	10.6	4.2	2.5
110.0	15.59	13.88	17.30	11.0	4.4	2.5
115.0	13.79	12.22	15.35	11.3	4.7	2.4
120.0	12.23	10.80	13.66	11.7	4.9	2.4
125.0	10.88	9.572	12.19	12.0	5.2	2.3

SMD
R/T characteristics

B57311V2221J060						
R/T No.	8501					
T (°C)	B _{25/100} = 3550 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	12459	10198	14721	18.1	2.8	6.5
-50.0	9049	7506	10593	17.1	2.7	6.3
-45.0	6646	5582	7710	16.0	2.6	6.1
-40.0	4932	4192	5673	15.0	2.6	5.9
-35.0	3698	3178	4217	14.0	2.5	5.7
-30.0	2799	2431	3166	13.1	2.4	5.5
-25.0	2137	1876	2399	12.2	2.3	5.3
-20.0	1647	1459	1835	11.4	2.2	5.1
-15.0	1279	1144	1415	10.6	2.1	5.0
-10.0	1002	903.6	1100	9.8	2.0	4.8
-5.0	790.5	719.0	862.0	9.0	1.9	4.7
0.0	628.3	576.0	680.5	8.3	1.8	4.5
5.0	502.9	464.5	541.2	7.6	1.7	4.4
10.0	405.2	377.0	433.3	6.9	1.6	4.3
15.0	328.5	307.9	349.2	6.3	1.5	4.1
20.0	268.1	252.9	283.2	5.7	1.4	4.0
25.0	220.0	209.0	231.0	5.0	1.3	3.9
30.0	181.6	171.3	191.8	5.6	1.5	3.8
35.0	150.7	141.3	160.0	6.2	1.7	3.7
40.0	125.7	117.2	134.2	6.8	1.9	3.6
45.0	105.4	97.70	113.1	7.3	2.1	3.5
50.0	88.79	81.85	95.73	7.8	2.3	3.4
55.0	75.15	68.90	81.40	8.3	2.5	3.3
60.0	63.89	58.26	69.51	8.8	2.7	3.2
65.0	54.55	49.49	59.61	9.3	3.0	3.1
70.0	46.77	42.22	51.32	9.7	3.2	3.0
75.0	40.26	36.16	44.36	10.2	3.4	3.0
80.0	34.79	31.10	38.48	10.6	3.7	2.9
85.0	30.17	26.84	33.50	11.0	3.9	2.8
90.0	26.26	23.26	29.27	11.4	4.2	2.7
95.0	22.94	20.22	25.66	11.8	4.4	2.7
100.0	20.10	17.64	22.56	12.2	4.7	2.6
105.0	17.67	15.45	19.90	12.6	5.0	2.5
110.0	15.59	13.56	17.61	13.0	5.2	2.5
115.0	13.79	11.95	15.62	13.3	5.5	2.4
120.0	12.23	10.56	13.90	13.7	5.8	2.4
125.0	10.88	9.354	12.41	14.0	6.1	2.3

SMD
R/T characteristics

B57311V2331H060						
R/T No.	8501					
T (°C)	B _{25/100} = 3550 K, R ₂₅ = 330 Ω, T _R = 25 °C, ΔR _R /R _R = ± 3%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	18689	15671	21707	16.1	2.5	6.5
-50.0	13574	11530	15618	15.1	2.4	6.3
-45.0	9969	8572	11365	14.0	2.3	6.1
-40.0	7399	6436	8361	13.0	2.2	5.9
-35.0	5546	4878	6215	12.0	2.1	5.7
-30.0	4198	3731	4665	11.1	2.0	5.5
-25.0	3206	2878	3535	10.2	1.9	5.3
-20.0	2470	2238	2702	9.4	1.8	5.1
-15.0	1919	1754	2084	8.6	1.7	5.0
-10.0	1503	1385	1620	7.8	1.6	4.8
-5.0	1186	1102	1269	7.0	1.5	4.7
0.0	942.4	882.9	1002	6.3	1.4	4.5
5.0	754.3	711.9	796.7	5.6	1.3	4.4
10.0	607.7	577.7	637.8	4.9	1.2	4.3
15.0	492.8	471.7	514.0	4.3	1.0	4.1
20.0	402.1	387.4	416.8	3.7	0.9	4.0
25.0	330.0	320.1	339.9	3.0	0.8	3.9
30.0	272.4	262.5	282.3	3.6	1.0	3.8
35.0	226.0	216.5	235.5	4.2	1.1	3.7
40.0	188.6	179.6	197.5	4.8	1.3	3.6
45.0	158.1	149.7	166.5	5.3	1.5	3.5
50.0	133.2	125.4	140.9	5.8	1.7	3.4
55.0	112.7	105.6	119.8	6.3	1.9	3.3
60.0	95.83	89.31	102.4	6.8	2.1	3.2
65.0	81.82	75.87	87.78	7.3	2.3	3.1
70.0	70.15	64.73	75.58	7.7	2.5	3.0
75.0	60.39	55.45	65.33	8.2	2.8	3.0
80.0	52.18	47.69	56.68	8.6	3.0	2.9
85.0	45.26	41.17	49.35	9.0	3.2	2.8
90.0	39.39	35.67	43.11	9.4	3.4	2.7
95.0	34.41	31.02	37.79	9.8	3.7	2.7
100.0	30.15	27.07	33.24	10.2	3.9	2.6
105.0	26.51	23.70	29.32	10.6	4.2	2.5
110.0	23.38	20.81	25.94	11.0	4.4	2.5
115.0	20.68	18.34	23.02	11.3	4.7	2.4
120.0	18.35	16.20	20.49	11.7	4.9	2.4
125.0	16.32	14.36	18.28	12.0	5.2	2.3

SMD
R/T characteristics

B57311V2331J060						
R/T No.	8501					
T (°C)	B _{25/100} = 3550 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	18689	15297	22081	18.1	2.8	6.5
-50.0	13574	11259	15889	17.1	2.7	6.3
-45.0	9969	8373	11565	16.0	2.6	6.1
-40.0	7399	6288	8509	15.0	2.6	5.9
-35.0	5546	4767	6326	14.0	2.5	5.7
-30.0	4198	3647	4749	13.1	2.4	5.5
-25.0	3206	2813	3599	12.2	2.3	5.3
-20.0	2470	2189	2752	11.4	2.2	5.1
-15.0	1919	1716	2122	10.6	2.1	5.0
-10.0	1503	1355	1650	9.8	2.0	4.8
-5.0	1186	1078	1293	9.0	1.9	4.7
0.0	942.4	864.0	1021	8.3	1.8	4.5
5.0	754.3	696.8	811.7	7.6	1.7	4.4
10.0	607.7	565.6	649.9	6.9	1.6	4.3
15.0	492.8	461.8	523.8	6.3	1.5	4.1
20.0	402.1	379.3	424.8	5.7	1.4	4.0
25.0	330.0	313.5	346.5	5.0	1.3	3.9
30.0	272.4	257.0	287.7	5.6	1.5	3.8
35.0	226.0	212.0	240.1	6.2	1.7	3.7
40.0	188.6	175.8	201.3	6.8	1.9	3.6
45.0	158.1	146.6	169.6	7.3	2.1	3.5
50.0	133.2	122.8	143.6	7.8	2.3	3.4
55.0	112.7	103.3	122.1	8.3	2.5	3.3
60.0	95.83	87.40	104.3	8.8	2.7	3.2
65.0	81.82	74.24	89.41	9.3	3.0	3.1
70.0	70.15	63.33	76.98	9.7	3.2	3.0
75.0	60.39	54.24	66.54	10.2	3.4	3.0
80.0	52.18	46.64	57.72	10.6	3.7	2.9
85.0	45.26	40.26	50.25	11.0	3.9	2.8
90.0	39.39	34.89	43.90	11.4	4.2	2.7
95.0	34.41	30.33	38.48	11.8	4.4	2.7
100.0	30.15	26.47	33.84	12.2	4.7	2.6
105.0	26.51	23.17	29.85	12.6	5.0	2.5
110.0	23.38	20.35	26.41	13.0	5.2	2.5
115.0	20.68	17.92	23.44	13.3	5.5	2.4
120.0	18.35	15.84	20.86	13.7	5.8	2.4
125.0	16.32	14.03	18.61	14.0	6.1	2.3

SMD
R/T characteristics

B57321V2681H060						
R/T No.	8502					
T (°C)	B _{25/100} = 4000 K, R ₂₅ = 680 Ω, T _R = 25 °C, ΔR _R /R _R = ± 3%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	65387	53742	77033	17.8	2.4	7.4
-50.0	45486	37946	53027	16.6	2.3	7.1
-45.0	32046	27112	36981	15.4	2.2	6.9
-40.0	22852	19591	26113	14.3	2.1	6.6
-35.0	16485	14311	18659	13.2	2.1	6.4
-30.0	12023	10562	13485	12.2	2.0	6.2
-25.0	8862	7873	9851	11.2	1.9	6.0
-20.0	6597	5924	7271	10.2	1.8	5.8
-15.0	4959	4498	5419	9.3	1.7	5.6
-10.0	3761	3445	4077	8.4	1.5	5.4
-5.0	2878	2661	3095	7.6	1.4	5.3
0.0	2221	2071	2370	6.7	1.3	5.1
5.0	1727	1625	1830	5.9	1.2	4.9
10.0	1354	1284	1424	5.2	1.1	4.8
15.0	1069	1021	1116	4.4	1.0	4.7
20.0	849.6	817.9	881.4	3.7	0.8	4.5
25.0	680.0	659.6	700.4	3.0	0.7	4.4
30.0	547.8	527.4	568.1	3.7	0.9	4.3
35.0	444.0	424.6	463.3	4.4	1.1	4.1
40.0	362.0	343.9	380.0	5.0	1.2	4.0
45.0	296.8	280.2	313.3	5.6	1.4	3.9
50.0	244.7	229.6	259.8	6.2	1.6	3.8
55.0	202.8	189.1	216.4	6.7	1.8	3.7
60.0	168.9	156.6	181.2	7.3	2.0	3.6
65.0	141.4	130.3	152.4	7.8	2.2	3.5
70.0	118.9	109.0	128.8	8.3	2.4	3.4
75.0	100.4	91.53	109.3	8.8	2.6	3.3
80.0	85.16	77.22	93.09	9.3	2.9	3.2
85.0	72.54	65.43	79.64	9.8	3.1	3.2
90.0	62.03	55.67	68.40	10.3	3.3	3.1
95.0	53.26	47.56	58.96	10.7	3.6	3.0
100.0	45.89	40.78	51.00	11.1	3.8	2.9
105.0	39.69	35.10	44.28	11.6	4.0	2.9
110.0	34.44	30.31	38.57	12.0	4.3	2.8
115.0	29.99	26.27	33.70	12.4	4.5	2.7
120.0	26.19	22.85	29.54	12.8	4.8	2.7
125.0	22.95	19.93	25.97	13.2	5.0	2.6

SMD
R/T characteristics

B57321V2681J060						
R/T No.	8502					
T (°C)	B _{25/100} = 4000 K, R ₂₅ = 680 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	65387	52434	78341	19.8	2.7	7.4
-50.0	45486	37036	53936	18.6	2.6	7.1
-45.0	32046	26471	37622	17.4	2.5	6.9
-40.0	22852	19134	26570	16.3	2.4	6.6
-35.0	16485	13981	18989	15.2	2.4	6.4
-30.0	12023	10322	13725	14.2	2.3	6.2
-25.0	8862	7696	10028	13.2	2.2	6.0
-20.0	6597	5792	7403	12.2	2.1	5.8
-15.0	4959	4399	5518	11.3	2.0	5.6
-10.0	3761	3370	4153	10.4	1.9	5.4
-5.0	2878	2603	3153	9.6	1.8	5.3
0.0	2221	2027	2415	8.7	1.7	5.1
5.0	1727	1590	1864	7.9	1.6	4.9
10.0	1354	1256	1451	7.2	1.5	4.8
15.0	1069	999.8	1138	6.4	1.4	4.7
20.0	849.6	800.9	898.4	5.7	1.3	4.5
25.0	680.0	646.0	714.0	5.0	1.1	4.4
30.0	547.8	516.5	579.1	5.7	1.3	4.3
35.0	444.0	415.7	472.2	6.4	1.5	4.1
40.0	362.0	336.7	387.2	7.0	1.7	4.0
45.0	296.8	274.3	319.3	7.6	1.9	3.9
50.0	244.7	224.7	264.6	8.2	2.1	3.8
55.0	202.8	185.1	220.5	8.7	2.4	3.7
60.0	168.9	153.2	184.6	9.3	2.6	3.6
65.0	141.4	127.5	155.2	9.8	2.8	3.5
70.0	118.9	106.6	131.1	10.3	3.0	3.4
75.0	100.4	89.52	111.3	10.8	3.2	3.3
80.0	85.16	75.52	94.80	11.3	3.5	3.2
85.0	72.54	63.98	81.09	11.8	3.7	3.2
90.0	62.03	54.43	69.64	12.3	4.0	3.1
95.0	53.26	46.49	60.02	12.7	4.2	3.0
100.0	45.89	39.86	51.92	13.1	4.5	2.9
105.0	39.69	34.30	45.07	13.6	4.7	2.9
110.0	34.44	29.63	39.25	14.0	5.0	2.8
115.0	29.99	25.67	34.30	14.4	5.3	2.7
120.0	26.19	22.32	30.06	14.8	5.5	2.7
125.0	22.95	19.47	26.43	15.2	5.8	2.6

SMD
R/T characteristics

B57321V2102H060						
R/T No.	8502					
T (°C)	B _{25/100} = 4000 K, R ₂₅ = 1000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 3%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	96158	79032	113280	17.8	2.4	7.4
-50.0	66892	55803	77980	16.6	2.3	7.1
-45.0	47127	39870	54384	15.4	2.2	6.9
-40.0	33606	28810	38402	14.3	2.1	6.6
-35.0	24243	21045	27440	13.2	2.1	6.4
-30.0	17681	15532	19830	12.2	2.0	6.2
-25.0	13032	11578	14486	11.2	1.9	6.0
-20.0	9702	8712	10692	10.2	1.8	5.8
-15.0	7292	6615	7969	9.3	1.7	5.6
-10.0	5531	5067	5996	8.4	1.5	5.4
-5.0	4232	3913	4552	7.6	1.4	5.3
0.0	3266	3046	3486	6.7	1.3	5.1
5.0	2540	2389	2691	5.9	1.2	4.9
10.0	1991	1888	2094	5.2	1.1	4.8
15.0	1572	1502	1641	4.4	1.0	4.7
20.0	1249	1203	1296	3.7	0.8	4.5
25.0	1000.0	970.0	1030	3.0	0.7	4.4
30.0	805.5	775.6	835.4	3.7	0.9	4.3
35.0	652.9	624.4	681.3	4.4	1.1	4.1
40.0	532.3	505.8	558.8	5.0	1.2	4.0
45.0	436.4	412.1	460.8	5.6	1.4	3.9
50.0	359.8	337.6	382.0	6.2	1.6	3.8
55.0	298.2	278.1	318.3	6.7	1.8	3.7
60.0	248.4	230.3	266.4	7.3	2.0	3.6
65.0	207.9	191.6	224.1	7.8	2.2	3.5
70.0	174.8	160.2	189.3	8.3	2.4	3.4
75.0	147.6	134.6	160.7	8.8	2.6	3.3
80.0	125.2	113.6	136.9	9.3	2.9	3.2
85.0	106.7	96.23	117.1	9.8	3.1	3.2
90.0	91.23	81.87	100.6	10.3	3.3	3.1
95.0	78.32	69.94	86.70	10.7	3.6	3.0
100.0	67.49	59.97	75.01	11.1	3.8	2.9
105.0	58.36	51.61	65.11	11.6	4.0	2.9
110.0	50.65	44.58	56.71	12.0	4.3	2.8
115.0	44.10	38.64	49.56	12.4	4.5	2.7
120.0	38.52	33.60	43.44	12.8	4.8	2.7
125.0	33.75	29.31	38.19	13.2	5.0	2.6

SMD
R/T characteristics

B57321V2102J060						
R/T No.	8502					
T (°C)	B _{25/100} = 4000 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	96158	77109	115210	19.8	2.7	7.4
-50.0	66892	54465	79318	18.6	2.6	7.1
-45.0	47127	38927	55326	17.4	2.5	6.9
-40.0	33606	28138	39074	16.3	2.4	6.6
-35.0	24243	20560	27925	15.2	2.4	6.4
-30.0	17681	15179	20184	14.2	2.3	6.2
-25.0	13032	11317	14747	13.2	2.2	6.0
-20.0	9702	8518	10886	12.2	2.1	5.8
-15.0	7292	6469	8115	11.3	2.0	5.6
-10.0	5531	4956	6107	10.4	1.9	5.4
-5.0	4232	3828	4637	9.6	1.8	5.3
0.0	3266	2981	3551	8.7	1.7	5.1
5.0	2540	2338	2742	7.9	1.6	4.9
10.0	1991	1848	2134	7.2	1.5	4.8
15.0	1572	1470	1673	6.4	1.4	4.7
20.0	1249	1178	1321	5.7	1.3	4.5
25.0	1000.0	950.0	1050	5.0	1.1	4.4
30.0	805.5	759.5	851.5	5.7	1.3	4.3
35.0	652.9	611.4	694.4	6.4	1.5	4.1
40.0	532.3	495.1	569.4	7.0	1.7	4.0
45.0	436.4	403.4	469.5	7.6	1.9	3.9
50.0	359.8	330.4	389.2	8.2	2.1	3.8
55.0	298.2	272.2	324.2	8.7	2.4	3.7
60.0	248.4	225.3	271.4	9.3	2.6	3.6
65.0	207.9	187.5	228.3	9.8	2.8	3.5
70.0	174.8	156.7	192.8	10.3	3.0	3.4
75.0	147.6	131.6	163.6	10.8	3.2	3.3
80.0	125.2	111.1	139.4	11.3	3.5	3.2
85.0	106.7	94.09	119.3	11.8	3.7	3.2
90.0	91.23	80.05	102.4	12.3	4.0	3.1
95.0	78.32	68.37	88.27	12.7	4.2	3.0
100.0	67.49	58.62	76.36	13.1	4.5	2.9
105.0	58.36	50.45	66.28	13.6	4.7	2.9
110.0	50.65	43.57	57.73	14.0	5.0	2.8
115.0	44.10	37.76	50.44	14.4	5.3	2.7
120.0	38.52	32.83	44.21	14.8	5.5	2.7
125.0	33.75	28.64	38.87	15.2	5.8	2.6

SMD
R/T characteristics

B57321V2152H060						
R/T No.	8502					
T (°C)	B _{25/100} = 4000 K, R ₂₅ = 1500 Ω, T _R = 25 °C, ΔR _R /R _R = ± 3%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	144240	118550	169930	17.8	2.4	7.4
-50.0	100340	83704	116970	16.6	2.3	7.1
-45.0	70690	59805	81576	15.4	2.2	6.9
-40.0	50409	43215	57603	14.3	2.1	6.6
-35.0	36364	31567	41160	13.2	2.1	6.4
-30.0	26522	23299	29746	12.2	2.0	6.2
-25.0	19548	17367	21730	11.2	1.9	6.0
-20.0	14553	13068	16038	10.2	1.8	5.8
-15.0	10938	9923	11954	9.3	1.7	5.6
-10.0	8297	7600	8994	8.4	1.5	5.4
-5.0	6349	5869	6828	7.6	1.4	5.3
0.0	4899	4569	5228	6.7	1.3	5.1
5.0	3810	3584	4036	5.9	1.2	4.9
10.0	2986	2831	3141	5.2	1.1	4.8
15.0	2357	2253	2462	4.4	1.0	4.7
20.0	1874	1804	1944	3.7	0.8	4.5
25.0	1500	1455	1545	3.0	0.7	4.4
30.0	1208	1163	1253	3.7	0.9	4.3
35.0	979.3	936.7	1022	4.4	1.1	4.1
40.0	798.4	758.7	838.2	5.0	1.2	4.0
45.0	654.7	618.1	691.2	5.6	1.4	3.9
50.0	539.7	506.5	573.0	6.2	1.6	3.8
55.0	447.3	417.2	477.4	6.7	1.8	3.7
60.0	372.6	345.4	399.7	7.3	2.0	3.6
65.0	311.8	287.5	336.2	7.8	2.2	3.5
70.0	262.2	240.4	284.0	8.3	2.4	3.4
75.0	221.5	201.9	241.0	8.8	2.6	3.3
80.0	187.8	170.3	205.4	9.3	2.9	3.2
85.0	160.0	144.3	175.7	9.8	3.1	3.2
90.0	136.8	122.8	150.9	10.3	3.3	3.1
95.0	117.5	104.9	130.1	10.7	3.6	3.0
100.0	101.2	89.96	112.5	11.1	3.8	2.9
105.0	87.54	77.42	97.67	11.6	4.0	2.9
110.0	75.97	66.87	85.07	12.0	4.3	2.8
115.0	66.15	57.96	74.34	12.4	4.5	2.7
120.0	57.78	50.40	65.16	12.8	4.8	2.7
125.0	50.63	43.97	57.29	13.2	5.0	2.6

SMD
R/T characteristics

B57321V2152J060						
R/T No.	8502					
T (°C)	B _{25/100} = 4000 K, R ₂₅ = 1500 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	144240	115660	172810	19.8	2.7	7.4
-50.0	100340	81697	118980	18.6	2.6	7.1
-45.0	70690	58391	82989	17.4	2.5	6.9
-40.0	50409	42207	58611	16.3	2.4	6.6
-35.0	36364	30840	41888	15.2	2.4	6.4
-30.0	26522	22768	30276	14.2	2.3	6.2
-25.0	19548	16976	22121	13.2	2.2	6.0
-20.0	14553	12777	16329	12.2	2.1	5.8
-15.0	10938	9704	12173	11.3	2.0	5.6
-10.0	8297	7434	9160	10.4	1.9	5.4
-5.0	6349	5742	6955	9.6	1.8	5.3
0.0	4899	4471	5326	8.7	1.7	5.1
5.0	3810	3507	4113	7.9	1.6	4.9
10.0	2986	2772	3200	7.2	1.5	4.8
15.0	2357	2205	2509	6.4	1.4	4.7
20.0	1874	1767	1982	5.7	1.3	4.5
25.0	1500	1425	1575	5.0	1.1	4.4
30.0	1208	1139	1277	5.7	1.3	4.3
35.0	979.3	917.1	1042	6.4	1.5	4.1
40.0	798.4	742.7	854.2	7.0	1.7	4.0
45.0	654.7	605.0	704.3	7.6	1.9	3.9
50.0	539.7	495.7	583.8	8.2	2.1	3.8
55.0	447.3	408.2	486.3	8.7	2.4	3.7
60.0	372.6	338.0	407.1	9.3	2.6	3.6
65.0	311.8	281.2	342.4	9.8	2.8	3.5
70.0	262.2	235.1	289.3	10.3	3.0	3.4
75.0	221.5	197.5	245.4	10.8	3.2	3.3
80.0	187.8	166.6	209.1	11.3	3.5	3.2
85.0	160.0	141.1	178.9	11.8	3.7	3.2
90.0	136.8	120.1	153.6	12.3	4.0	3.1
95.0	117.5	102.6	132.4	12.7	4.2	3.0
100.0	101.2	87.93	114.5	13.1	4.5	2.9
105.0	87.54	75.67	99.42	13.6	4.7	2.9
110.0	75.97	65.35	86.59	14.0	5.0	2.8
115.0	66.15	56.63	75.66	14.4	5.3	2.7
120.0	57.78	49.24	66.32	14.8	5.5	2.7
125.0	50.63	42.95	58.30	15.2	5.8	2.6

SMD
R/T characteristics

B57321V2222H060						
R/T No.	8502					
T (°C)	B _{25/100} = 4000 K, R ₂₅ = 2200 Ω, T _R = 25 °C, ΔR _R /R _R = ± 3%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	211550	173870	249220	17.8	2.4	7.4
-50.0	147160	122770	171560	16.6	2.3	7.1
-45.0	103680	87714	119640	15.4	2.2	6.9
-40.0	73933	63383	84484	14.3	2.1	6.6
-35.0	53334	46299	60368	13.2	2.1	6.4
-30.0	38899	34171	43627	12.2	2.0	6.2
-25.0	28671	25471	31870	11.2	1.9	6.0
-20.0	21344	19166	23523	10.2	1.8	5.8
-15.0	16043	14553	17533	9.3	1.7	5.6
-10.0	12169	11146	13192	8.4	1.5	5.4
-5.0	9311	8608	10015	7.6	1.4	5.3
0.0	7185	6701	7668	6.7	1.3	5.1
5.0	5588	5256	5920	5.9	1.2	4.9
10.0	4379	4153	4606	5.2	1.1	4.8
15.0	3457	3304	3611	4.4	1.0	4.7
20.0	2749	2646	2851	3.7	0.8	4.5
25.0	2200	2134	2266	3.0	0.7	4.4
30.0	1772	1706	1838	3.7	0.9	4.3
35.0	1436	1374	1499	4.4	1.1	4.1
40.0	1171	1113	1229	5.0	1.2	4.0
45.0	960.2	906.6	1014	5.6	1.4	3.9
50.0	791.6	742.8	840.4	6.2	1.6	3.8
55.0	656.0	611.9	700.2	6.7	1.8	3.7
60.0	546.4	506.6	586.2	7.3	2.0	3.6
65.0	457.3	421.6	493.0	7.8	2.2	3.5
70.0	384.5	352.5	416.6	8.3	2.4	3.4
75.0	324.8	296.1	353.5	8.8	2.6	3.3
80.0	275.5	249.8	301.2	9.3	2.9	3.2
85.0	234.7	211.7	257.7	9.8	3.1	3.2
90.0	200.7	180.1	221.3	10.3	3.3	3.1
95.0	172.3	153.9	190.7	10.7	3.6	3.0
100.0	148.5	131.9	165.0	11.1	3.8	2.9
105.0	128.4	113.6	143.2	11.6	4.0	2.9
110.0	111.4	98.08	124.8	12.0	4.3	2.8
115.0	97.02	85.00	109.0	12.4	4.5	2.7
120.0	84.74	73.92	95.57	12.8	4.8	2.7
125.0	74.25	64.48	84.03	13.2	5.0	2.6

SMD
R/T characteristics

B57321V2222J060						
R/T No.	8502					
T (°C)	B _{25/100} = 4000 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	211550	169640	253460	19.8	2.7	7.4
-50.0	147160	119820	174500	18.6	2.6	7.1
-45.0	103680	85640	121720	17.4	2.5	6.9
-40.0	73933	61904	85963	16.3	2.4	6.6
-35.0	53334	45232	61435	15.2	2.4	6.4
-30.0	38899	33393	44405	14.2	2.3	6.2
-25.0	28671	24898	32444	13.2	2.2	6.0
-20.0	21344	18739	23949	12.2	2.1	5.8
-15.0	16043	14232	17854	11.3	2.0	5.6
-10.0	12169	10903	13435	10.4	1.9	5.4
-5.0	9311	8422	10201	9.6	1.8	5.3
0.0	7185	6557	7812	8.7	1.7	5.1
5.0	5588	5144	6032	7.9	1.6	4.9
10.0	4379	4065	4694	7.2	1.5	4.8
15.0	3457	3235	3680	6.4	1.4	4.7
20.0	2749	2591	2906	5.7	1.3	4.5
25.0	2200	2090	2310	5.0	1.1	4.4
30.0	1772	1671	1873	5.7	1.3	4.3
35.0	1436	1345	1528	6.4	1.5	4.1
40.0	1171	1089	1253	7.0	1.7	4.0
45.0	960.2	887.4	1033	7.6	1.9	3.9
50.0	791.6	727.0	856.2	8.2	2.1	3.8
55.0	656.0	598.8	713.3	8.7	2.4	3.7
60.0	546.4	495.7	597.1	9.3	2.6	3.6
65.0	457.3	412.5	502.2	9.8	2.8	3.5
70.0	384.5	344.8	424.3	10.3	3.0	3.4
75.0	324.8	289.6	360.0	10.8	3.2	3.3
80.0	275.5	244.3	306.7	11.3	3.5	3.2
85.0	234.7	207.0	262.4	11.8	3.7	3.2
90.0	200.7	176.1	225.3	12.3	4.0	3.1
95.0	172.3	150.4	194.2	12.7	4.2	3.0
100.0	148.5	129.0	168.0	13.1	4.5	2.9
105.0	128.4	111.0	145.8	13.6	4.7	2.9
110.0	111.4	95.85	127.0	14.0	5.0	2.8
115.0	97.02	83.06	111.0	14.4	5.3	2.7
120.0	84.74	72.22	97.26	14.8	5.5	2.7
125.0	74.25	63.00	85.51	15.2	5.8	2.6

SMD
R/T characteristics

B57301V2472H060						
R/T No.	8500					
T (°C)	B _{25/100} = 3650 K, R ₂₅ = 4700 Ω, T _R = 25 °C, ΔR _R /R _R = ± 3%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	300410	250790	350030	16.5	2.4	6.8
-50.0	215680	182480	248880	15.4	2.4	6.5
-45.0	156720	134280	179150	14.3	2.3	6.3
-40.0	115170	99862	130470	13.3	2.2	6.1
-35.0	85545	75020	96069	12.3	2.1	5.8
-30.0	64190	56900	71480	11.4	2.0	5.6
-25.0	48632	43550	53714	10.5	1.9	5.5
-20.0	37184	33622	40745	9.6	1.8	5.3
-15.0	28679	26172	31186	8.7	1.7	5.1
-10.0	22303	20534	24073	7.9	1.6	4.9
-5.0	17483	16232	18735	7.2	1.5	4.8
0.0	13808	12923	14694	6.4	1.4	4.6
5.0	10985	10360	11610	5.7	1.3	4.5
10.0	8799	8360	9239	5.0	1.1	4.4
15.0	7095	6788	7402	4.3	1.0	4.2
20.0	5757	5546	5969	3.7	0.9	4.1
25.0	4700	4559	4841	3.0	0.8	4.0
30.0	3859	3718	4000	3.7	0.9	3.9
35.0	3186	3051	3322	4.2	1.1	3.8
40.0	2645	2518	2772	4.8	1.3	3.7
45.0	2207	2089	2325	5.4	1.5	3.6
50.0	1851	1742	1960	5.9	1.7	3.5
55.0	1559	1459	1659	6.4	1.9	3.4
60.0	1319	1228	1411	6.9	2.1	3.3
65.0	1122	1039	1204	7.4	2.3	3.2
70.0	957.4	882.1	1033	7.9	2.5	3.1
75.0	820.6	752.3	888.9	8.3	2.7	3.0
80.0	706.1	644.1	768.0	8.8	3.0	3.0
85.0	609.8	553.7	665.9	9.2	3.2	2.9
90.0	528.6	477.7	579.5	9.6	3.4	2.8
95.0	459.8	413.7	506.0	10.0	3.6	2.8
100.0	401.4	359.5	443.2	10.4	3.9	2.7
105.0	351.5	313.4	389.5	10.8	4.1	2.6
110.0	308.7	274.2	343.3	11.2	4.4	2.6
115.0	272.1	240.6	303.5	11.6	4.6	2.5
120.0	240.4	211.8	269.1	11.9	4.9	2.4
125.0	213.1	186.9	239.2	12.3	5.1	2.4

SMD
R/T characteristics

B57301V2472J060						
R/T No.	8500					
T (°C)	B _{25/100} = 3650 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	300410	244780	356040	18.5	2.7	6.8
-50.0	215680	178170	253190	17.4	2.7	6.5
-45.0	156720	131140	182290	16.3	2.6	6.3
-40.0	115170	97559	132780	15.3	2.5	6.1
-35.0	85545	73309	97780	14.3	2.4	5.8
-30.0	64190	55616	72764	13.4	2.4	5.6
-25.0	48632	42577	54687	12.5	2.3	5.5
-20.0	37184	32878	41489	11.6	2.2	5.3
-15.0	28679	25598	31759	10.7	2.1	5.1
-10.0	22303	20088	24519	9.9	2.0	4.9
-5.0	17483	15882	19084	9.2	1.9	4.8
0.0	13808	12647	14970	8.4	1.8	4.6
5.0	10985	10140	11830	7.7	1.7	4.5
10.0	8799	8184	9415	7.0	1.6	4.4
15.0	7095	6646	7544	6.3	1.5	4.2
20.0	5757	5430	6084	5.7	1.4	4.1
25.0	4700	4465	4935	5.0	1.3	4.0
30.0	3859	3641	4077	5.7	1.5	3.9
35.0	3186	2988	3385	6.2	1.7	3.8
40.0	2645	2465	2825	6.8	1.9	3.7
45.0	2207	2045	2369	7.4	2.1	3.6
50.0	1851	1705	1997	7.9	2.3	3.5
55.0	1559	1428	1690	8.4	2.5	3.4
60.0	1319	1202	1437	8.9	2.7	3.3
65.0	1122	1016	1227	9.4	2.9	3.2
70.0	957.4	862.9	1052	9.9	3.2	3.1
75.0	820.6	735.8	905.3	10.3	3.4	3.0
80.0	706.1	630.0	782.1	10.8	3.6	3.0
85.0	609.8	541.5	678.1	11.2	3.9	2.9
90.0	528.6	467.2	590.1	11.6	4.1	2.8
95.0	459.8	404.5	515.2	12.0	4.4	2.8
100.0	401.4	351.5	451.3	12.4	4.6	2.7
105.0	351.5	306.4	396.5	12.8	4.9	2.6
110.0	308.7	268.0	349.5	13.2	5.2	2.6
115.0	272.1	235.1	309.0	13.6	5.4	2.5
120.0	240.4	206.9	273.9	13.9	5.7	2.4
125.0	213.1	182.7	243.5	14.3	6.0	2.4

SMD
R/T characteristics

B57371V2682H060						
R/T No.	8507					
T (°C)	B _{25/100} = 4480 K, R ₂₅ = 6800 Ω, T _R = 25 °C, ΔR _R /R _R = ± 3%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	970400	780390	1160400	19.6	2.5	7.9
-50.0	659010	539060	778950	18.2	2.4	7.6
-45.0	453130	376640	529620	16.9	2.3	7.4
-40.0	315290	266050	364530	15.6	2.2	7.1
-35.0	221880	189910	253850	14.4	2.1	6.9
-30.0	157850	136940	178760	13.2	2.0	6.7
-25.0	113470	99701	127240	12.1	1.9	6.5
-20.0	82382	73268	91496	11.1	1.8	6.3
-15.0	60386	54327	66446	10.0	1.6	6.1
-10.0	44671	40630	48711	9.0	1.5	5.9
-5.0	33337	30639	36035	8.1	1.4	5.8
0.0	25089	23289	26890	7.2	1.3	5.6
5.0	19036	17839	20234	6.3	1.2	5.4
10.0	14556	13765	15348	5.4	1.0	5.3
15.0	11215	10697	11732	4.6	0.9	5.1
20.0	8702	8370	9035	3.8	0.8	5.0
25.0	6800	6596	7004	3.0	0.6	4.9
30.0	5349	5146	5552	3.8	0.8	4.7
35.0	4235	4044	4426	4.5	1.0	4.6
40.0	3374	3198	3549	5.2	1.2	4.5
45.0	2703	2544	2863	5.9	1.3	4.4
50.0	2179	2037	2321	6.5	1.5	4.3
55.0	1766	1639	1893	7.2	1.7	4.1
60.0	1439	1327	1551	7.8	1.9	4.0
65.0	1179	1080	1277	8.4	2.1	3.9
70.0	970.1	883.1	1057	9.0	2.3	3.8
75.0	802.3	725.9	878.7	9.5	2.5	3.8
80.0	666.6	599.5	733.8	10.1	2.8	3.7
85.0	556.4	497.4	615.4	10.6	3.0	3.6
90.0	466.4	414.5	518.3	11.1	3.2	3.5
95.0	392.6	347	438.2	11.6	3.4	3.4
100.0	331.8	291.6	372	12.1	3.6	3.3
105.0	281.5	246.1	317	12.6	3.9	3.2
110.0	239.8	208.5	271.1	13.1	4.1	3.2
115.0	205	177.3	232.6	13.5	4.4	3.1
120.0	175.8	151.3	200.3	13.9	4.6	3.0
125.0	151.4	129.6	173.1	14.4	4.8	3.0

SMD
R/T characteristics

B57371V2682J060						
R/T No.	8507					
T (°C)	B _{25/100} = 4480 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	970400	760980	1179800	21.6	2.7	7.9
-50.0	659010	525880	792130	20.2	2.7	7.6
-45.0	453130	367580	538680	18.9	2.6	7.4
-40.0	315290	259740	370830	17.6	2.5	7.1
-35.0	221880	185480	258280	16.4	2.4	6.9
-30.0	157850	133780	181910	15.2	2.3	6.7
-25.0	113470	97432	129500	14.1	2.2	6.5
-20.0	82382	71620	93144	13.1	2.1	6.3
-15.0	60386	53119	67654	12.0	2.0	6.1
-10.0	44671	39736	49605	11.0	1.9	5.9
-5.0	33337	29972	36701	10.1	1.7	5.8
0.0	25089	22787	27391	9.2	1.6	5.6
5.0	19036	17458	20614	8.3	1.5	5.4
10.0	14556	13474	15639	7.4	1.4	5.3
15.0	11215	10473	11956	6.6	1.3	5.1
20.0	8702	8196	9209	5.8	1.2	5.0
25.0	6800	6460	7140	5.0	1.0	4.9
30.0	5349	5039	5659	5.8	1.2	4.7
35.0	4235	3959	4511	6.5	1.4	4.6
40.0	3374	3130	3617	7.2	1.6	4.5
45.0	2703	2490	2917	7.9	1.8	4.4
50.0	2179	1993	2365	8.5	2.0	4.3
55.0	1766	1604	1928	9.2	2.2	4.1
60.0	1439	1298	1580	9.8	2.4	4.0
65.0	1179	1056	1301	10.4	2.6	3.9
70.0	970.1	863.7	1076	11.0	2.9	3.8
75.0	802.3	709.8	894.8	11.5	3.1	3.8
80.0	666.6	586.2	747.1	12.1	3.3	3.7
85.0	556.4	486.3	626.5	12.6	3.5	3.6
90.0	466.4	405.2	527.6	13.1	3.8	3.5
95.0	392.6	339.1	446.1	13.6	4.0	3.4
100.0	331.8	285	378.6	14.1	4.2	3.3
105.0	281.5	240.5	322.6	14.6	4.5	3.2
110.0	239.8	203.7	275.9	15.1	4.7	3.2
115.0	205	173.2	236.7	15.5	5.0	3.1
120.0	175.8	147.8	203.9	15.9	5.3	3.0
125.0	151.4	126.6	176.1	16.4	5.5	3.0

SMD
R/T characteristics

B57321V2103H060						
R/T No.	8502					
T (°C)	B _{25/100} = 4000 K, R ₂₅ = 10000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 3%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	961580	790320	1132800	17.8	2.4	7.4
-50.0	668920	558030	779810	16.6	2.3	7.1
-45.0	471270	398700	543840	15.4	2.2	6.9
-40.0	336060	288100	384020	14.3	2.1	6.6
-35.0	242430	210450	274400	13.2	2.1	6.4
-30.0	176810	155320	198300	12.2	2.0	6.2
-25.0	130320	115780	144860	11.2	1.9	6.0
-20.0	97020	87120	106920	10.2	1.8	5.8
-15.0	72923	66151	79695	9.3	1.7	5.6
-10.0	55314	50666	59962	8.4	1.5	5.4
-5.0	42325	39128	45522	7.6	1.4	5.3
0.0	32657	30458	34856	6.7	1.3	5.1
5.0	25400	23890	26910	5.9	1.2	4.9
10.0	19907	18875	20938	5.2	1.1	4.8
15.0	15716	15017	16415	4.4	1.0	4.7
20.0	12494	12027	12961	3.7	0.8	4.5
25.0	10000	9700	10300	3.0	0.7	4.4
30.0	8055	7756	8354	3.7	0.9	4.3
35.0	6529	6244	6813	4.4	1.1	4.1
40.0	5323	5058	5588	5.0	1.2	4.0
45.0	4364	4121	4608	5.6	1.4	3.9
50.0	3598	3376	3820	6.2	1.6	3.8
55.0	2982	2781	3183	6.7	1.8	3.7
60.0	2484	2303	2664	7.3	2.0	3.6
65.0	2079	1916	2241	7.8	2.2	3.5
70.0	1748	1602	1893	8.3	2.4	3.4
75.0	1476	1346	1607	8.8	2.6	3.3
80.0	1252	1136	1369	9.3	2.9	3.2
85.0	1067	962.3	1171	9.8	3.1	3.2
90.0	912.3	818.7	1006	10.3	3.3	3.1
95.0	783.2	699.4	867.0	10.7	3.6	3.0
100.0	674.9	599.7	750.1	11.1	3.8	2.9
105.0	583.6	516.1	651.1	11.6	4.0	2.9
110.0	506.5	445.8	567.1	12.0	4.3	2.8
115.0	441.0	386.4	495.6	12.4	4.5	2.7
120.0	385.2	336.0	434.4	12.8	4.8	2.7
125.0	337.5	293.1	381.9	13.2	5.0	2.6

SMD
R/T characteristics

B57321V2103J060						
R/T No.	8502					
T (°C)	B _{25/100} = 4000 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	961580	771090	1152100	19.8	2.7	7.4
-50.0	668920	544650	793180	18.6	2.6	7.1
-45.0	471270	389270	553260	17.4	2.5	6.9
-40.0	336060	281380	390740	16.3	2.4	6.6
-35.0	242430	205600	279250	15.2	2.4	6.4
-30.0	176810	151790	201840	14.2	2.3	6.2
-25.0	130320	113170	147470	13.2	2.2	6.0
-20.0	97020	85179	108860	12.2	2.1	5.8
-15.0	72923	64693	81153	11.3	2.0	5.6
-10.0	55314	49560	61068	10.4	1.9	5.4
-5.0	42325	38282	46368	9.6	1.8	5.3
0.0	32657	29805	35510	8.7	1.7	5.1
5.0	25400	23382	27418	7.9	1.6	4.9
10.0	19907	18477	21336	7.2	1.5	4.8
15.0	15716	14703	16729	6.4	1.4	4.7
20.0	12494	11778	13211	5.7	1.3	4.5
25.0	10000	9500	10500	5.0	1.1	4.4
30.0	8055	7595	8515	5.7	1.3	4.3
35.0	6529	6114	6944	6.4	1.5	4.1
40.0	5323	4951	5694	7.0	1.7	4.0
45.0	4364	4034	4695	7.6	1.9	3.9
50.0	3598	3304	3892	8.2	2.1	3.8
55.0	2982	2722	3242	8.7	2.4	3.7
60.0	2484	2253	2714	9.3	2.6	3.6
65.0	2079	1875	2283	9.8	2.8	3.5
70.0	1748	1567	1928	10.3	3.0	3.4
75.0	1476	1316	1636	10.8	3.2	3.3
80.0	1252	1111	1394	11.3	3.5	3.2
85.0	1067	940.9	1193	11.8	3.7	3.2
90.0	912.3	800.5	1024	12.3	4.0	3.1
95.0	783.2	683.7	882.7	12.7	4.2	3.0
100.0	674.9	586.2	763.6	13.1	4.5	2.9
105.0	583.6	504.5	662.8	13.6	4.7	2.9
110.0	506.5	435.7	577.3	14.0	5.0	2.8
115.0	441.0	377.6	504.4	14.4	5.3	2.7
120.0	385.2	328.3	442.1	14.8	5.5	2.7
125.0	337.5	286.4	388.7	15.2	5.8	2.6

SMD
R/T characteristics

B57371V2103H060						
R/T No.	8507					
T (°C)	B _{25/100} = 4480 K, R ₂₅ = 10000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 3%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	1427100	1147600	1706500	19.6	2.5	7.9
-50.0	969130	792740	1145500	18.2	2.4	7.6
-45.0	666370	553880	778850	16.9	2.3	7.4
-40.0	463660	391250	536070	15.6	2.2	7.1
-35.0	326290	279280	373300	14.4	2.1	6.9
-30.0	232130	201380	262880	13.2	2.0	6.7
-25.0	166870	146620	187110	12.1	1.9	6.5
-20.0	121150	107750	134550	11.1	1.8	6.3
-15.0	88803	79892	97714	10.0	1.6	6.1
-10.0	65692	59750	71634	9.0	1.5	5.9
-5.0	49025	45057	52992	8.1	1.4	5.8
0.0	36896	34249	39544	7.2	1.3	5.6
5.0	27994	26233	29755	6.3	1.2	5.4
10.0	21406	20242	22570	5.4	1.0	5.3
15.0	16492	15731	17253	4.6	0.9	5.1
20.0	12798	12309	13286	3.8	0.8	5.0
25.0	10000	9700	10300	3.0	0.6	4.9
30.0	7866	7568	8165	3.8	0.8	4.7
35.0	6228	5947	6509	4.5	1.0	4.6
40.0	4961	4703	5219	5.2	1.2	4.5
45.0	3976	3742	4210	5.9	1.3	4.4
50.0	3204	2995	3414	6.5	1.5	4.3
55.0	2597	2411	2783	7.2	1.7	4.1
60.0	2116	1951	2281	7.8	1.9	4.0
65.0	1733	1588	1878	8.4	2.1	3.9
70.0	1427	1299	1554	9.0	2.3	3.8
75.0	1180	1067	1292	9.5	2.5	3.8
80.0	980.3	881.6	1079	10.1	2.8	3.7
85.0	818.2	731.5	905	10.6	3.0	3.6
90.0	685.9	609.6	762.1	11.1	3.2	3.5
95.0	577.4	510.3	644.4	11.6	3.4	3.4
100.0	488	428.9	547.1	12.1	3.6	3.3
105.0	414	361.9	466.1	12.6	3.9	3.2
110.0	352.6	306.6	398.6	13.1	4.1	3.2
115.0	301.4	260.7	342.1	13.5	4.4	3.1
120.0	258.6	222.5	294.6	13.9	4.6	3.0
125.0	222.6	190.6	254.6	14.4	4.8	3.0

SMD
R/T characteristics

B57371V2103J060						
R/T No.	8507					
T (°C)	B _{25/100} = 4480 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	1427100	1119100	1735000	21.6	2.7	7.9
-50.0	969130	773360	1164900	20.2	2.7	7.6
-45.0	666370	540550	792180	18.9	2.6	7.4
-40.0	463660	381970	545340	17.6	2.5	7.1
-35.0	326290	272760	379830	16.4	2.4	6.9
-30.0	232130	196740	267520	15.2	2.3	6.7
-25.0	166870	143280	190450	14.1	2.2	6.5
-20.0	121150	105320	136980	13.1	2.1	6.3
-15.0	88803	78116	99491	12.0	2.0	6.1
-10.0	65692	58436	72948	11.0	1.9	5.9
-5.0	49025	44076	53973	10.1	1.7	5.8
0.0	36896	33511	40282	9.2	1.6	5.6
5.0	27994	25673	30315	8.3	1.5	5.4
10.0	21406	19814	22999	7.4	1.4	5.3
15.0	16492	15401	17583	6.6	1.3	5.1
20.0	12798	12053	13542	5.8	1.2	5.0
25.0	10000	9500	10500	5.0	1.0	4.9
30.0	7866	7411	8322	5.8	1.2	4.7
35.0	6228	5822	6633	6.5	1.4	4.6
40.0	4961	4603	5319	7.2	1.6	4.5
45.0	3976	3662	4289	7.9	1.8	4.4
50.0	3204	2931	3478	8.5	2.0	4.3
55.0	2597	2359	2835	9.2	2.2	4.1
60.0	2116	1909	2323	9.8	2.4	4.0
65.0	1733	1553	1913	10.4	2.6	3.9
70.0	1427	1270	1583	11.0	2.9	3.8
75.0	1180	1044	1316	11.5	3.1	3.8
80.0	980.3	862	1099	12.1	3.3	3.7
85.0	818.2	715.1	921.3	12.6	3.5	3.6
90.0	685.9	595.9	775.9	13.1	3.8	3.5
95.0	577.4	498.7	656	13.6	4.0	3.4
100.0	488	419.1	556.8	14.1	4.2	3.3
105.0	414	353.6	474.4	14.6	4.5	3.2
110.0	352.6	299.6	405.7	15.1	4.7	3.2
115.0	301.4	254.7	348.2	15.5	5.0	3.1
120.0	258.6	217.4	299.8	15.9	5.3	3.0
125.0	222.6	186.1	259	16.4	5.5	3.0

SMD
R/T characteristics

B57321V2223H060						
R/T No.	8502					
T (°C)	B _{25/100} = 4000 K, R ₂₅ = 22000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 3%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	2115500	1738700	2492200	17.8	2.4	7.4
-50.0	1471600	1227700	1715600	16.6	2.3	7.1
-45.0	1036800	877140	1196400	15.4	2.2	6.9
-40.0	739330	633830	844840	14.3	2.1	6.6
-35.0	533340	462990	603680	13.2	2.1	6.4
-30.0	388990	341710	436270	12.2	2.0	6.2
-25.0	286710	254710	318700	11.2	1.9	6.0
-20.0	213440	191660	235230	10.2	1.8	5.8
-15.0	160430	145530	175330	9.3	1.7	5.6
-10.0	121690	111470	131920	8.4	1.5	5.4
-5.0	93115	86082	100150	7.6	1.4	5.3
0.0	71846	67008	76684	6.7	1.3	5.1
5.0	55880	52558	59201	5.9	1.2	4.9
10.0	43795	41525	46064	5.2	1.1	4.8
15.0	34575	33037	36112	4.4	1.0	4.7
20.0	27487	26460	28515	3.7	0.8	4.5
25.0	22000	21340	22660	3.0	0.7	4.4
30.0	17721	17063	18380	3.7	0.9	4.3
35.0	14363	13738	14989	4.4	1.1	4.1
40.0	11710	11127	12293	5.0	1.2	4.0
45.0	9602	9066	10138	5.6	1.4	3.9
50.0	7916	7428	8404	6.2	1.6	3.8
55.0	6560	6119	7002	6.7	1.8	3.7
60.0	5464	5066	5862	7.3	2.0	3.6
65.0	4573	4216	4930	7.8	2.2	3.5
70.0	3845	3525	4166	8.3	2.4	3.4
75.0	3248	2961	3535	8.8	2.6	3.3
80.0	2755	2498	3012	9.3	2.9	3.2
85.0	2347	2117	2577	9.8	3.1	3.2
90.0	2007	1801	2213	10.3	3.3	3.1
95.0	1723	1539	1907	10.7	3.6	3.0
100.0	1485	1319	1650	11.1	3.8	2.9
105.0	1284	1136	1432	11.6	4.0	2.9
110.0	1114	980.8	1248	12.0	4.3	2.8
115.0	970.2	850	1090	12.4	4.5	2.7
120.0	847.4	739.2	955.7	12.8	4.8	2.7
125.0	742.5	644.8	840.3	13.2	5.0	2.6

SMD
R/T characteristics

B57321V2223J060						
R/T No.	8502					
T (°C)	B _{25/100} = 4000 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	2115500	1696400	2534500	19.8	2.7	7.4
-50.0	1471600	1198200	1745000	18.6	2.6	7.1
-45.0	1036800	856400	1217200	17.4	2.5	6.9
-40.0	739330	619040	859630	16.3	2.4	6.6
-35.0	533340	452320	614350	15.2	2.4	6.4
-30.0	388990	333930	444050	14.2	2.3	6.2
-25.0	286710	248980	324440	13.2	2.2	6.0
-20.0	213440	187390	239490	12.2	2.1	5.8
-15.0	160430	142320	178540	11.3	2.0	5.6
-10.0	121690	109030	134350	10.4	1.9	5.4
-5.0	93115	84220	102010	9.6	1.8	5.3
0.0	71846	65571	78121	8.7	1.7	5.1
5.0	55880	51441	60319	7.9	1.6	4.9
10.0	43795	40649	46940	7.2	1.5	4.8
15.0	34575	32346	36804	6.4	1.4	4.7
20.0	27487	25911	29064	5.7	1.3	4.5
25.0	22000	20900	23100	5.0	1.1	4.4
30.0	17721	16709	18734	5.7	1.3	4.3
35.0	14363	13450	15276	6.4	1.5	4.1
40.0	11710	10893	12528	7.0	1.7	4.0
45.0	9602	8874	10330	7.6	1.9	3.9
50.0	7916	7270	8562	8.2	2.1	3.8
55.0	6560	5988	7133	8.7	2.4	3.7
60.0	5464	4957	5971	9.3	2.6	3.6
65.0	4573	4125	5022	9.8	2.8	3.5
70.0	3845	3448	4243	10.3	3.0	3.4
75.0	3248	2896	3600	10.8	3.2	3.3
80.0	2755	2443	3067	11.3	3.5	3.2
85.0	2347	2070	2624	11.8	3.7	3.2
90.0	2007	1761	2253	12.3	4.0	3.1
95.0	1723	1504	1942	12.7	4.2	3.0
100.0	1485	1290	1680	13.1	4.5	2.9
105.0	1284	1110	1458	13.6	4.7	2.9
110.0	1114	958.5	1270	14.0	5.0	2.8
115.0	970.2	830.6	1110	14.4	5.3	2.7
120.0	847.4	722.2	972.6	14.8	5.5	2.7
125.0	742.5	630	855.1	15.2	5.8	2.6

SMD
R/T characteristics

B57371V2223H060						
R/T No.	8507					
T (°C)	B _{25/100} = 4480 K, R ₂₅ = 22000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 3%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	3139500	2524800	3754300	19.6	2.5	7.9
-50.0	2132100	1744000	2520100	18.2	2.4	7.6
-45.0	1466000	1218500	1713500	16.9	2.3	7.4
-40.0	1020000	860740	1179300	15.6	2.2	7.1
-35.0	717840	614420	821260	14.4	2.1	6.9
-30.0	510680	443040	578330	13.2	2.0	6.7
-25.0	367100	322560	411640	12.1	1.9	6.5
-20.0	266530	237040	296020	11.1	1.8	6.3
-15.0	195370	175760	214970	10.0	1.6	6.1
-10.0	144520	131450	157600	9.0	1.5	5.9
-5.0	107850	99125	116580	8.1	1.4	5.8
0.0	81171	75347	86996	7.2	1.3	5.6
5.0	61587	57713	65462	6.3	1.2	5.4
10.0	47094	44533	49655	5.4	1.0	5.3
15.0	36282	34608	37956	4.6	0.9	5.1
20.0	28155	27080	29230	3.8	0.8	5.0
25.0	22000	21340	22660	3.0	0.6	4.9
30.0	17306	16649	17962	3.8	0.8	4.7
35.0	13701	13083	14319	4.5	1.0	4.6
40.0	10914	10346	11483	5.2	1.2	4.5
45.0	8746	8232	9261	5.9	1.3	4.4
50.0	7050	6589	7510	6.5	1.5	4.3
55.0	5713	5304	6123	7.2	1.7	4.1
60.0	4655	4293	5018	7.8	1.9	4.0
65.0	3813	3493	4132	8.4	2.1	3.9
70.0	3138	2857	3420	9.0	2.3	3.8
75.0	2596	2348	2843	9.5	2.5	3.8
80.0	2157	1940	2374	10.1	2.8	3.7
85.0	1800	1609	1991	10.6	3.0	3.6
90.0	1509	1341	1677	11.1	3.2	3.5
95.0	1270	1123	1418	11.6	3.4	3.4
100.0	1074	943.5	1204	12.1	3.6	3.3
105.0	910.9	796.2	1026	12.6	3.9	3.2
110.0	775.8	674.5	877	13.1	4.1	3.2
115.0	663.1	573.6	752.7	13.5	4.4	3.1
120.0	568.9	489.6	648.2	13.9	4.6	3.0
125.0	489.7	419.3	560.1	14.4	4.8	3.0

SMD
R/T characteristics

B57371V2223J060						
R/T No.	8507					
T (°C)	B _{25/100} = 4480 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	3139500	2462000	3817100	21.6	2.7	7.9
-50.0	2132100	1701400	2562800	20.2	2.7	7.6
-45.0	1466000	1189200	1742800	18.9	2.6	7.4
-40.0	1020000	840340	1199800	17.6	2.5	7.1
-35.0	717840	600070	835620	16.4	2.4	6.9
-30.0	510680	432820	588550	15.2	2.3	6.7
-25.0	367100	315220	418980	14.1	2.2	6.5
-20.0	266530	231710	301350	13.1	2.1	6.3
-15.0	195370	171860	218880	12.0	2.0	6.1
-10.0	144520	128560	160490	11.0	1.9	5.9
-5.0	107850	96968	118740	10.1	1.7	5.8
0.0	81171	73723	88620	9.2	1.6	5.6
5.0	61587	56481	66694	8.3	1.5	5.4
10.0	47094	43591	50597	7.4	1.4	5.3
15.0	36282	33882	38682	6.6	1.3	5.1
20.0	28155	26517	29793	5.8	1.2	5.0
25.0	22000	20900	23100	5.0	1.0	4.9
30.0	17306	16303	18308	5.8	1.2	4.7
35.0	13701	12809	14593	6.5	1.4	4.6
40.0	10914	10127	11701	7.2	1.6	4.5
45.0	8746	8057	9436	7.9	1.8	4.4
50.0	7050	6448	7651	8.5	2.0	4.3
55.0	5713	5189	6237	9.2	2.2	4.1
60.0	4655	4200	5111	9.8	2.4	4.0
65.0	3813	3417	4209	10.4	2.6	3.9
70.0	3138	2794	3482	11.0	2.9	3.8
75.0	2596	2297	2895	11.5	3.1	3.8
80.0	2157	1896	2417	12.1	3.3	3.7
85.0	1800	1573	2027	12.6	3.5	3.6
90.0	1509	1311	1707	13.1	3.8	3.5
95.0	1270	1097	1443	13.6	4.0	3.4
100.0	1074	922	1225	14.1	4.2	3.3
105.0	910.9	778	1044	14.6	4.5	3.2
110.0	775.8	659	892.5	15.1	4.7	3.2
115.0	663.1	560.3	765.9	15.5	5.0	3.1
120.0	568.9	478.2	659.6	15.9	5.3	3.0
125.0	489.7	409.5	569.8	16.4	5.5	3.0

SMD
R/T characteristics

B57321V2473H060						
R/T No.	8502					
T (°C)	B _{25/100} = 4000 K, R ₂₅ = 47000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 3%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	4519400	3714500	5324300	17.8	2.4	7.4
-50.0	3143900	2622700	3665100	16.6	2.3	7.1
-45.0	2215000	1873900	2556000	15.4	2.2	6.9
-40.0	1579500	1354100	1804900	14.3	2.1	6.6
-35.0	1139400	989110	1289700	13.2	2.1	6.4
-30.0	831030	730020	932030	12.2	2.0	6.2
-25.0	612510	544150	680860	11.2	1.9	6.0
-20.0	456000	409460	502530	10.2	1.8	5.8
-15.0	342740	310910	374570	9.3	1.7	5.6
-10.0	259980	238130	281820	8.4	1.5	5.4
-5.0	198930	183900	213950	7.6	1.4	5.3
0.0	153490	143150	163830	6.7	1.3	5.1
5.0	119380	112280	126480	5.9	1.2	4.9
10.0	93561	88713	98409	5.2	1.1	4.8
15.0	73864	70580	77149	4.4	1.0	4.7
20.0	58723	56529	60917	3.7	0.8	4.5
25.0	47000	45590	48410	3.0	0.7	4.4
30.0	37860	36454	39266	3.7	0.9	4.3
35.0	30685	29348	32022	4.4	1.1	4.1
40.0	25018	23772	26263	5.0	1.2	4.0
45.0	20513	19368	21658	5.6	1.4	3.9
50.0	16911	15869	17954	6.2	1.6	3.8
55.0	14015	13072	14958	6.7	1.8	3.7
60.0	11673	10824	12523	7.3	2.0	3.6
65.0	9770	9007	10533	7.8	2.2	3.5
70.0	8215	7531	8899	8.3	2.4	3.4
75.0	6939	6326	7551	8.8	2.6	3.3
80.0	5886	5337	6434	9.3	2.9	3.2
85.0	5014	4523	5505	9.8	3.1	3.2
90.0	4288	3848	4727	10.3	3.3	3.1
95.0	3681	3287	4075	10.7	3.6	3.0
100.0	3172	2819	3525	11.1	3.8	2.9
105.0	2743	2426	3060	11.6	4.0	2.9
110.0	2380	2095	2666	12.0	4.3	2.8
115.0	2073	1816	2329	12.4	4.5	2.7
120.0	1810	1579	2042	12.8	4.8	2.7
125.0	1586	1378	1795	13.2	5.0	2.6

SMD
R/T characteristics

B57321V2473J060						
R/T No.	8502					
T (°C)	B _{25/100} = 4000 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	4519400	3624100	5414700	19.8	2.7	7.4
-50.0	3143900	2559900	3728000	18.6	2.6	7.1
-45.0	2215000	1829600	2600300	17.4	2.5	6.9
-40.0	1579500	1322500	1836500	16.3	2.4	6.6
-35.0	1139400	966320	1312500	15.2	2.4	6.4
-30.0	831030	713400	948650	14.2	2.3	6.2
-25.0	612510	531900	693110	13.2	2.2	6.0
-20.0	456000	400340	511650	12.2	2.1	5.8
-15.0	342740	304060	381420	11.3	2.0	5.6
-10.0	259980	232930	287020	10.4	1.9	5.4
-5.0	198930	179920	217930	9.6	1.8	5.3
0.0	153490	140080	166900	8.7	1.7	5.1
5.0	119380	109900	128860	7.9	1.6	4.9
10.0	93561	86841	100280	7.2	1.5	4.8
15.0	73864	69102	78626	6.4	1.4	4.7
20.0	58723	55355	62092	5.7	1.3	4.5
25.0	47000	44650	49350	5.0	1.1	4.4
30.0	37860	35696	40023	5.7	1.3	4.3
35.0	30685	28735	32636	6.4	1.5	4.1
40.0	25018	23272	26763	7.0	1.7	4.0
45.0	20513	18958	22068	7.6	1.9	3.9
50.0	16911	15531	18292	8.2	2.1	3.8
55.0	14015	12792	15239	8.7	2.4	3.7
60.0	11673	10590	12757	9.3	2.6	3.6
65.0	9770	8812	10729	9.8	2.8	3.5
70.0	8215	7367	9064	10.3	3.0	3.4
75.0	6939	6187	7690	10.8	3.2	3.3
80.0	5886	5220	6552	11.3	3.5	3.2
85.0	5014	4422	5605	11.8	3.7	3.2
90.0	4288	3762	4813	12.3	4.0	3.1
95.0	3681	3213	4149	12.7	4.2	3.0
100.0	3172	2755	3589	13.1	4.5	2.9
105.0	2743	2371	3115	13.6	4.7	2.9
110.0	2380	2048	2713	14.0	5.0	2.8
115.0	2073	1775	2371	14.4	5.3	2.7
120.0	1810	1543	2078	14.8	5.5	2.7
125.0	1586	1346	1827	15.2	5.8	2.6

SMD
R/T characteristics

B57371V2473H060						
R/T No.	8507					
T (°C)	B _{25/100} = 4480 K, R ₂₅ = 47000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 3%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	6707200	5393800	8020500	19.6	2.5	7.9
-50.0	4554900	3725900	5383900	18.2	2.4	7.6
-45.0	3131900	2603200	3660600	16.9	2.3	7.4
-40.0	2179200	1838900	2519500	15.6	2.2	7.1
-35.0	1533600	1312600	1754500	14.4	2.1	6.9
-30.0	1091000	946490	1235500	13.2	2.0	6.7
-25.0	784260	689110	879420	12.1	1.9	6.5
-20.0	569410	506410	632400	11.1	1.8	6.3
-15.0	417380	375490	459260	10.0	1.6	6.1
-10.0	308750	280820	336680	9.0	1.5	5.9
-5.0	230420	211770	249060	8.1	1.4	5.8
0.0	173410	160970	185860	7.2	1.3	5.6
5.0	131570	123300	139850	6.3	1.2	5.4
10.0	100610	95139	106080	5.4	1.0	5.3
15.0	77512	73935	81089	4.6	0.9	5.1
20.0	60149	57852	62446	3.8	0.8	5.0
25.0	47000	45590	48410	3.0	0.6	4.9
30.0	36971	35569	38374	3.8	0.8	4.7
35.0	29270	27949	30591	4.5	1.0	4.6
40.0	23317	22102	24532	5.2	1.2	4.5
45.0	18686	17586	19785	5.9	1.3	4.4
50.0	15060	14076	16045	6.5	1.5	4.3
55.0	12206	11331	13081	7.2	1.7	4.1
60.0	9946	9171	10720	7.8	1.9	4.0
65.0	8146	7463	8829	8.4	2.1	3.9
70.0	6705	6104	7306	9.0	2.3	3.8
75.0	5545	5017	6073	9.5	2.5	3.8
80.0	4608	4144	5072	10.1	2.8	3.7
85.0	3846	3438	4253	10.6	3.0	3.6
90.0	3224	2865	3582	11.1	3.2	3.5
95.0	2714	2398	3029	11.6	3.4	3.4
100.0	2293	2016	2571	12.1	3.6	3.3
105.0	1946	1701	2191	12.6	3.9	3.2
110.0	1657	1441	1874	13.1	4.1	3.2
115.0	1417	1225	1608	13.5	4.4	3.1
120.0	1215	1046	1385	13.9	4.6	3.0
125.0	1046	895.8	1196	14.4	4.8	3.0

SMD
R/T characteristics

B57371V2473J060						
R/T No.	8507					
T (°C)	B _{25/100} = 4480 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	6707200	5259700	8154700	21.6	2.7	7.9
-50.0	4554900	3634800	5475000	20.2	2.7	7.6
-45.0	3131900	2540600	3723200	18.9	2.6	7.4
-40.0	2179200	1795300	2563100	17.6	2.5	7.1
-35.0	1533600	1282000	1785200	16.4	2.4	6.9
-30.0	1091000	924670	1257300	15.2	2.3	6.7
-25.0	784260	673430	895100	14.1	2.2	6.5
-20.0	569410	495020	643790	13.1	2.1	6.3
-15.0	417380	367150	467610	12.0	2.0	6.1
-10.0	308750	274650	342860	11.0	1.9	5.9
-5.0	230420	207160	253670	10.1	1.7	5.8
0.0	173410	157500	189320	9.2	1.6	5.6
5.0	131570	120660	142480	8.3	1.5	5.4
10.0	100610	93127	108090	7.4	1.4	5.3
15.0	77512	72385	82639	6.6	1.3	5.1
20.0	60149	56649	63649	5.8	1.2	5.0
25.0	47000	44650	49350	5.0	1.0	4.9
30.0	36971	34829	39113	5.8	1.2	4.7
35.0	29270	27364	31176	6.5	1.4	4.6
40.0	23317	21636	24998	7.2	1.6	4.5
45.0	18686	17212	20159	7.9	1.8	4.4
50.0	15060	13775	16346	8.5	2.0	4.3
55.0	12206	11087	13326	9.2	2.2	4.1
60.0	9946	8972	10919	9.8	2.4	4.0
65.0	8146	7300	8991	10.4	2.6	3.9
70.0	6705	5970	7440	11.0	2.9	3.8
75.0	5545	4906	6184	11.5	3.1	3.8
80.0	4608	4051	5164	12.1	3.3	3.7
85.0	3846	3361	4330	12.6	3.5	3.6
90.0	3224	2801	3647	13.1	3.8	3.5
95.0	2714	2344	3083	13.6	4.0	3.4
100.0	2293	1970	2617	14.1	4.2	3.3
105.0	1946	1662	2230	14.6	4.5	3.2
110.0	1657	1408	1907	15.1	4.7	3.2
115.0	1417	1197	1636	15.5	5.0	3.1
120.0	1215	1022	1409	15.9	5.3	3.0
125.0	1046	874.9	1217	16.4	5.5	3.0

SMD
R/T characteristics

B57371V2683H060						
R/T No.	8507					
T (°C)	B _{25/100} = 4480 K, R ₂₅ = 68000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 3%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	9704000	7803900	11604000	19.6	2.5	7.9
-50.0	6590100	5390600	7789500	18.2	2.4	7.6
-45.0	4531300	3766400	5296200	16.9	2.3	7.4
-40.0	3152900	2660500	3645300	15.6	2.2	7.1
-35.0	2218800	1899100	2538400	14.4	2.1	6.9
-30.0	1578500	1369400	1787600	13.2	2.0	6.7
-25.0	1134700	997010	1272300	12.1	1.9	6.5
-20.0	823820	732680	914960	11.1	1.8	6.3
-15.0	603860	543270	664460	10.0	1.6	6.1
-10.0	446710	406300	487110	9.0	1.5	5.9
-5.0	333370	306390	360350	8.1	1.4	5.8
0.0	250890	232890	268900	7.2	1.3	5.6
5.0	190360	178390	202340	6.3	1.2	5.4
10.0	145560	137650	153480	5.4	1.0	5.3
15.0	112150	106970	117320	4.6	0.9	5.1
20.0	87024	83701	90347	3.8	0.8	5.0
25.0	68000	65960	70040	3.0	0.6	4.9
30.0	53491	51461	55520	3.8	0.8	4.7
35.0	42348	40437	44259	4.5	1.0	4.6
40.0	33735	31978	35492	5.2	1.2	4.5
45.0	27034	25444	28625	5.9	1.3	4.4
50.0	21790	20365	23214	6.5	1.5	4.3
55.0	17660	16393	18926	7.2	1.7	4.1
60.0	14389	13269	15510	7.8	1.9	4.0
65.0	11785	10797	12773	8.4	2.1	3.9
70.0	9701	8831	10570	9.0	2.3	3.8
75.0	8023	7259	8787	9.5	2.5	3.8
80.0	6666	5995	7338	10.1	2.8	3.7
85.0	5564	4974	6154	10.6	3.0	3.6
90.0	4664	4145	5183	11.1	3.2	3.5
95.0	3926	3470	4382	11.6	3.4	3.4
100.0	3318	2916	3720	12.1	3.6	3.3
105.0	2815	2461	3170	12.6	3.9	3.2
110.0	2398	2085	2711	13.1	4.1	3.2
115.0	2050	1773	2326	13.5	4.4	3.1
120.0	1758	1513	2003	13.9	4.6	3.0
125.0	1514	1296	1731	14.4	4.8	3.0

SMD
R/T characteristics

B57371V2683J060						
R/T No.	8507					
T (°C)	B _{25/100} = 4480 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	9704000	7609800	11798000	21.6	2.7	7.9
-50.0	6590100	5258800	7921300	20.2	2.7	7.6
-45.0	4531300	3675700	5386800	18.9	2.6	7.4
-40.0	3152900	2597400	3708300	17.6	2.5	7.1
-35.0	2218800	1854800	2582800	16.4	2.4	6.9
-30.0	1578500	1337800	1819100	15.2	2.3	6.7
-25.0	1134700	974320	1295000	14.1	2.2	6.5
-20.0	823820	716200	931440	13.1	2.1	6.3
-15.0	603860	531190	676540	12.0	2.0	6.1
-10.0	446710	397360	496050	11.0	1.9	5.9
-5.0	333370	299720	367010	10.1	1.7	5.8
0.0	250890	227870	273920	9.2	1.6	5.6
5.0	190360	174580	206150	8.3	1.5	5.4
10.0	145560	134740	156390	7.4	1.4	5.3
15.0	112150	104730	119560	6.6	1.3	5.1
20.0	87024	81960	92088	5.8	1.2	5.0
25.0	68000	64600	71400	5.0	1.0	4.9
30.0	53491	50392	56590	5.8	1.2	4.7
35.0	42348	39590	45106	6.5	1.4	4.6
40.0	33735	31303	36167	7.2	1.6	4.5
45.0	27034	24903	29166	7.9	1.8	4.4
50.0	21790	19929	23650	8.5	2.0	4.3
55.0	17660	16040	19279	9.2	2.2	4.1
60.0	14389	12981	15798	9.8	2.4	4.0
65.0	11785	10562	13009	10.4	2.6	3.9
70.0	9701	8637	10764	11.0	2.9	3.8
75.0	8023	7098	8948	11.5	3.1	3.8
80.0	6666	5862	7471	12.1	3.3	3.7
85.0	5564	4863	6265	12.6	3.5	3.6
90.0	4664	4052	5276	13.1	3.8	3.5
95.0	3926	3391	4461	13.6	4.0	3.4
100.0	3318	2850	3786	14.1	4.2	3.3
105.0	2815	2405	3226	14.6	4.5	3.2
110.0	2398	2037	2759	15.1	4.7	3.2
115.0	2050	1732	2367	15.5	5.0	3.1
120.0	1758	1478	2039	15.9	5.3	3.0
125.0	1514	1266	1761	16.4	5.5	3.0

SMD
R/T characteristics

B57371V2104H060						
R/T No.	8507					
T (°C)	B _{25/100} = 4480 K, R ₂₅ = 100000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 3%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	14271000	11476000	17065000	19.6	2.5	7.9
-50.0	9691300	7927400	11455000	18.2	2.4	7.6
-45.0	6663700	5538800	7788500	16.9	2.3	7.4
-40.0	4636600	3912500	5360700	15.6	2.2	7.1
-35.0	3262900	2792800	3733000	14.4	2.1	6.9
-30.0	2321300	2013800	2628800	13.2	2.0	6.7
-25.0	1668600	1466200	1871100	12.1	1.9	6.5
-20.0	1211500	1077500	1345500	11.1	1.8	6.3
-15.0	888030	798920	977150	10.0	1.6	6.1
-10.0	656920	597500	716340	9.0	1.5	5.9
-5.0	490250	450570	529920	8.1	1.4	5.8
0.0	368960	342490	395440	7.2	1.3	5.6
5.0	279940	262330	297560	6.3	1.2	5.4
10.0	214060	202420	225710	5.4	1.0	5.3
15.0	164920	157310	172530	4.6	0.9	5.1
20.0	127980	123090	132860	3.8	0.8	5.0
25.0	100000	97000	103000	3.0	0.6	4.9
30.0	78663	75679	81647	3.8	0.8	4.7
35.0	62277	59466	65087	4.5	1.0	4.6
40.0	49610	47026	52195	5.2	1.2	4.5
45.0	39757	37417	42096	5.9	1.3	4.4
50.0	32044	29949	34138	6.5	1.5	4.3
55.0	25970	24108	27833	7.2	1.7	4.1
60.0	21161	19513	22809	7.8	1.9	4.0
65.0	17331	15879	18784	8.4	2.1	3.9
70.0	14265	12987	15544	9.0	2.3	3.8
75.0	11799	10675	12922	9.5	2.5	3.8
80.0	9803	8816	10791	10.1	2.8	3.7
85.0	8182	7315	9050	10.6	3.0	3.6
90.0	6859	6096	7621	11.1	3.2	3.5
95.0	5774	5103	6444	11.6	3.4	3.4
100.0	4880	4289	5471	12.1	3.6	3.3
105.0	4140	3619	4661	12.6	3.9	3.2
110.0	3526	3066	3986	13.1	4.1	3.2
115.0	3014	2607	3421	13.5	4.4	3.1
120.0	2586	2225	2946	13.9	4.6	3.0
125.0	2226	1906	2546	14.4	4.8	3.0

SMD
R/T characteristics

B57371V2104J060						
R/T No.	8507					
T (°C)	B _{25/100} = 4480 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	14271000	11191000	17350000	21.6	2.7	7.9
-50.0	9691300	7733600	11649000	20.2	2.7	7.6
-45.0	6663700	5405500	7921800	18.9	2.6	7.4
-40.0	4636600	3819700	5453400	17.6	2.5	7.1
-35.0	3262900	2727600	3798300	16.4	2.4	6.9
-30.0	2321300	1967400	2675200	15.2	2.3	6.7
-25.0	1668600	1432800	1904500	14.1	2.2	6.5
-20.0	1211500	1053200	1369800	13.1	2.1	6.3
-15.0	888030	781160	994910	12.0	2.0	6.1
-10.0	656920	584360	729480	11.0	1.9	5.9
-5.0	490250	440760	539730	10.1	1.7	5.8
0.0	368960	335110	402820	9.2	1.6	5.6
5.0	279940	256730	303150	8.3	1.5	5.4
10.0	214060	198140	229990	7.4	1.4	5.3
15.0	164920	154010	175830	6.6	1.3	5.1
20.0	127980	120530	135420	5.8	1.2	5.0
25.0	100000	95000	105000	5.0	1.0	4.9
30.0	78663	74105	83220	5.8	1.2	4.7
35.0	62277	58221	66333	6.5	1.4	4.6
40.0	49610	46034	53187	7.2	1.6	4.5
45.0	39757	36622	42891	7.9	1.8	4.4
50.0	32044	29308	34779	8.5	2.0	4.3
55.0	25970	23589	28352	9.2	2.2	4.1
60.0	21161	19090	23232	9.8	2.4	4.0
65.0	17331	15532	19131	10.4	2.6	3.9
70.0	14265	12702	15829	11.0	2.9	3.8
75.0	11799	10439	13158	11.5	3.1	3.8
80.0	9803	8620	10987	12.1	3.3	3.7
85.0	8182	7151	9213	12.6	3.5	3.6
90.0	6859	5959	7759	13.1	3.8	3.5
95.0	5774	4987	6560	13.6	4.0	3.4
100.0	4880	4191	5568	14.1	4.2	3.3
105.0	4140	3536	4744	14.6	4.5	3.2
110.0	3526	2996	4057	15.1	4.7	3.2
115.0	3014	2547	3482	15.5	5.0	3.1
120.0	2586	2174	2998	15.9	5.3	3.0
125.0	2226	1861	2590	16.4	5.5	3.0

SMD
R/T characteristics

B57371V2474H060						
R/T No.	8507					
T (°C)	B _{25/100} = 4480 K, R ₂₅ = 470000 Ω, T _R = 25 °C, ΔR _R /R _R = ± 3%					
	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR _R /R _R [±%]	ΔT[±°C]	α (%/K)
-55.0	67072000	53938000	80205000	19.6	2.5	7.9
-50.0	45549000	37259000	53839000	18.2	2.4	7.6
-45.0	31319000	26032000	36606000	16.9	2.3	7.4
-40.0	21792000	18389000	25195000	15.6	2.2	7.1
-35.0	15336000	13126000	17545000	14.4	2.1	6.9
-30.0	10910000	9464800	12355000	13.2	2.0	6.7
-25.0	7842600	6891100	8794200	12.1	1.9	6.5
-20.0	5694000	5064100	6324000	11.1	1.8	6.3
-15.0	4173800	3754900	4592600	10.0	1.6	6.1
-10.0	3087500	2808200	3366800	9.0	1.5	5.9
-5.0	2304200	2117700	2490600	8.1	1.4	5.8
0.0	1734100	1609700	1858600	7.2	1.3	5.6
5.0	1315700	1233000	1398500	6.3	1.2	5.4
10.0	1006100	951390	1060800	5.4	1.0	5.3
15.0	775120	739350	810890	4.6	0.9	5.1
20.0	601490	578520	624460	3.8	0.8	5.0
25.0	470000	455900	484100	3.0	0.6	4.9
30.0	369710	355690	383740	3.8	0.8	4.7
35.0	292700	279490	305910	4.5	1.0	4.6
40.0	233170	221020	245320	5.2	1.2	4.5
45.0	186860	175860	197850	5.9	1.3	4.4
50.0	150610	140760	160450	6.5	1.5	4.3
55.0	122060	113310	130810	7.2	1.7	4.1
60.0	99457	91713	107200	7.8	1.9	4.0
65.0	81457	74629	88285	8.4	2.1	3.9
70.0	67048	61039	73056	9.0	2.3	3.8
75.0	55453	50172	60734	9.5	2.5	3.8
80.0	46076	41436	50716	10.1	2.8	3.7
85.0	38457	34380	42534	10.6	3.0	3.6
90.0	32237	28652	35821	11.1	3.2	3.5
95.0	27136	23982	30289	11.6	3.4	3.4
100.0	22934	20157	25712	12.1	3.6	3.3
105.0	19459	17010	21909	12.6	3.9	3.2
110.0	16573	14411	18736	13.1	4.1	3.2
115.0	14167	12254	16080	13.5	4.4	3.1
120.0	12153	10459	13848	13.9	4.6	3.0
125.0	10461	8958	11965	14.4	4.8	3.0

SMD
R/T characteristics

B57371V2474J060						
R/T No.	8507					
T (°C)	B _{25/100} = 4480 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	67072000	52597000	81547000	21.6	2.7	7.9
-50.0	45549000	36348000	54750000	20.2	2.7	7.6
-45.0	31319000	25406000	37232000	18.9	2.6	7.4
-40.0	21792000	17953000	25631000	17.6	2.5	7.1
-35.0	15336000	12820000	17852000	16.4	2.4	6.9
-30.0	10910000	9246600	12573000	15.2	2.3	6.7
-25.0	7842600	6734200	8951000	14.1	2.2	6.5
-20.0	5694000	4950200	6437900	13.1	2.1	6.3
-15.0	4173800	3671500	4676100	12.0	2.0	6.1
-10.0	3087500	2746500	3428600	11.0	1.9	5.9
-5.0	2304200	2071600	2536700	10.1	1.7	5.8
0.0	1734100	1575000	1893200	9.2	1.6	5.6
5.0	1315700	1206600	1424800	8.3	1.5	5.4
10.0	1006100	931270	1080900	7.4	1.4	5.3
15.0	775120	723850	826390	6.6	1.3	5.1
20.0	601490	566490	636490	5.8	1.2	5.0
25.0	470000	446500	493500	5.0	1.0	4.9
30.0	369710	348300	391130	5.8	1.2	4.7
35.0	292700	273640	311770	6.5	1.4	4.6
40.0	233170	216360	249980	7.2	1.6	4.5
45.0	186860	172130	201590	7.9	1.8	4.4
50.0	150610	137750	163460	8.5	2.0	4.3
55.0	122060	110870	133260	9.2	2.2	4.1
60.0	99457	89724	109190	9.8	2.4	4.0
65.0	81457	73000	89914	10.4	2.6	3.9
70.0	67048	59698	74397	11.0	2.9	3.8
75.0	55453	49063	61843	11.5	3.1	3.8
80.0	46076	40515	51638	12.1	3.3	3.7
85.0	38457	33611	43303	12.6	3.5	3.6
90.0	32237	28008	36466	13.1	3.8	3.5
95.0	27136	23439	30832	13.6	4.0	3.4
100.0	22934	19698	26170	14.1	4.2	3.3
105.0	19459	16621	22298	14.6	4.5	3.2
110.0	16573	14079	19068	15.1	4.7	3.2
115.0	14167	11971	16363	15.5	5.0	3.1
120.0	12153	10216	14091	15.9	5.3	3.0
125.0	10461	8749	12174	16.4	5.5	3.0

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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.

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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 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 an electronic component could endanger human life or health (e.g. in accident prevention or lifesaving 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 an 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. The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific products.
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