SMD 0805, NTC Thermistors AgPd Terminations

REMARK

Non preferred type
(replaced by NTCS0805E3.....T/2381 615 5....)

QUICK REFERENCE DATA		
PARAMETER	VALUE	UNIT
Resistance value at 25 °C	2K to 470K	Ω
Tolerance on R_{25} - value (1)	± 5	%
$B_{25/85}$ - value	3528 to 4130	K
Tolerance on $B_{25/85}$ - value	± 1, ± 1.5, ± 3	%
Maximum dissipation at 25 °C	210	mW
Thermal time constant t	≈ 10	s
Operating temperature range	- 55 to + 150	°C
R/T values	See tables	
Climatic category	40/125/56	
Mass	≈ 0.0155	g

Note
(1) Tighter tolerances are available upon request

FEATURES

- TCR from 6 %/K to 2 %/K even at high temperatures
- Tolerance on $B_{25/85}$ down to 1 %
- AgPd terminations
- Suitable for wave or reflow soldering
- Old part number was 2322 615 1...
- Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC

RoHS COMPLIANT

APPLICATIONS

Temperature compensation, sensing and protection in, for example:

- Battery chargers
- Consumer equipment
- Office equipment

DESCRIPTION

Size 0805 chip thermistors with a negative temperature coefficient. The device has no marking.

PACKAGING

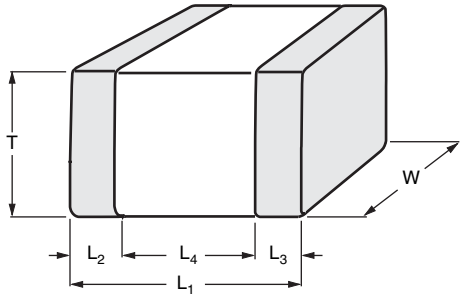
Available in 8 mm punched paper tape on reel package of 4000 units.

SOLDERABILITY AND RESISTANCE TO SOLDERING HEAT				
IEC 60068-2-20	TEST METHOD	TEST	PROCEDURE	REQUIREMENTS
6	T_C	Solderability	3 s at 215 °C; 2 s at 235 °C	$\Delta R/R < 5$ %

ELECTRICAL DATA AND ORDERING INFORMATION					
R_{25} - VALUE (kΩ)	TOLERANCE ON $R_{25\ °C}$	$B_{25/85}$ - VALUE (K)	TOLERANCE ON $B_{25/85}$ (%)	12 NC ORDERING CODE 2381 615 13...	SAP MATERIAL NO. NTCS0805E4... (2)
2	5 %	3680	± 3	202	202JMT
2.2	5 %	3680	± 3	222	222JMT
4.7	5 %	3560	± 1	472	472JMT
10	5 %	3620	± 1	103	103JMT
15	5 %	3528	± 1	153	153JMT
22	5 %	3930	± 1.5	223	223JHT
33	5 %	3960	± 3	333	333JHT
47	5 %	4090	± 1.5	473	473JXT
68	5 %	3740	± 3	683	683JMT
100	5 %	3650	± 1	104	104JMT
330	5 %	4015	± 3	334	334JXT
470	5 %	4130	± 3	474	474JXT

Note
(2) Replace digit Y in SAP part no by J for 5 %

DIMENSIONS in millimeters



L_1	W	T MAX.	L_2 and L_3 MIN.	L_4 MIN.
2.0 ± 0.2	1.25 ± 0.2	1.25	0.5 ± 0.25	0.5

RESISTANCE VALUES AT INTERMEDIATE TEMPERATURES WITH R_{25} AT 2000 Ω

T_{OPER} (°C)	CATALOG NUMBER 2381 615 13202 OR SAP NO. NTCS0805E4202JMT				
	R_T/R_{25}	TCR (%/K)	R_T (Ω)	5 % Tol. $\Delta R/R$ (%)	5 % Tol. ΔT (K)
- 40	27.23	- 6.21	54 462.6	15.94	2.57
- 35	20.06	- 6.02	40 118.4	14.88	2.47
- 30	14.92	- 5.83	29 834.5	13.87	2.38
- 25	11.20	- 5.65	22 393.8	12.89	2.28
- 20	8.481	- 5.47	16 961.6	11.95	2.19
- 15	6.480	- 5.29	12 960.5	11.05	2.09
- 10	4.994	- 5.13	9987.9	10.19	1.99
- 5	3.880	- 4.97	7760.8	9.36	1.89
0	3.393	- 4.81	6078.6	8.56	1.78
5	2.399	- 4.66	4797.7	7.79	1.67
10	1.908	- 4.51	3815.0	7.05	1.56
15	1.528	- 4.37	3055.3	6.34	1.45
20	1.232	- 4.24	2463.8	5.66	1.34
25	1.000	- 4.11	2000.0	5.00	1.22
30	0.8170	- 3.98	1633.9	5.64	1.42
35	0.6715	- 3.86	1343.1	6.26	1.62
40	0.5553	- 3.74	1110.5	6.87	1.83
45	0.4618	- 3.63	923.5	7.46	2.05
50	0.3861	- 3.53	772.2	8.04	2.28
55	0.3245	- 3.42	649.0	8.61	2.51
60	0.2742	- 3.32	548.3	9.16	2.76
65	0.2327	- 3.23	465.5	9.69	3.00
70	0.1985	- 3.14	397.0	10.22	3.26
75	0.1701	- 3.05	340.2	10.73	3.52
80	0.1464	- 2.96	292.7	11.23	3.79
85	0.1265	- 2.88	252.9	11.72	4.07
90	0.1097	- 2.80	219.4	12.20	4.35
95	0.0956	- 2.73	191.1	12.66	4.65
100	0.0835	- 2.65	167.1	13.12	4.95
105	0.0733	- 2.58	146.6	13.56	5.25
110	0.0645	- 2.51	129.1	14.00	5.57
115	0.0570	- 2.45	114.0	14.42	5.89
120	0.0505	- 2.38	101.0	14.84	6.22
125	0.0449	- 2.32	89.8	15.24	6.56
130	0.0400	- 2.26	80.1	15.64	6.91
135	0.0358	- 2.21	71.6	16.03	7.26
140	0.0321	- 2.15	64.2	16.41	7.62
145	0.0289	- 2.10	57.7	16.78	7.99
150	0.0260	- 2.05	52.1	17.15	8.37

RESISTANCE VALUES AT INTERMEDIATE TEMPERATURES WITH R_{25} AT 2200 Ω					
T_{OPER} (°C)	CATALOG NUMBER 2381 615 13222 OR SAP NO. NTCS0805E4222JMT				
	R_T/R_{25}	TCR (%/K)	R_T (Ω)	5 % Tol. $\Delta R/R$ (%)	5 % Tol. ΔT (K)
- 40	27.23	- 6.21	59 909	15.94	2.57
- 35	20.06	- 6.02	44 130	14.88	2.47
- 30	14.92	- 5.83	12 818	13.87	2.38
- 25	11.20	- 5.65	24 633	12.89	2.28
- 20	8.481	- 5.47	18 658	11.95	2.19
- 15	6.480	- 5.29	14 257	11.05	2.09
- 10	4.994	- 5.13	10 987	10.19	1.99
- 5	3.880	- 4.97	8537	9.36	1.89
0	3.393	- 4.81	6686	8.56	1.78
5	2.399	- 4.66	5278	7.79	1.67
10	1.908	- 4.51	4196	7.05	1.56
15	1.528	- 4.37	3361	6.34	1.45
20	1.232	- 4.24	2710	5.66	1.34
25	1.000	- 4.11	2200	5.00	1.22
30	0.8170	- 3.98	1797	5.64	1.42
35	0.6715	- 3.86	1477	6.26	1.62
40	0.5553	- 3.74	1222	6.87	1.83
45	0.4618	- 3.63	1016	7.46	2.05
50	0.3861	- 3.53	849.4	8.04	2.28
55	0.3245	- 3.42	714.0	8.61	2.51
60	0.2742	- 3.32	603.2	9.16	2.76
65	0.2327	- 3.23	512.0	9.69	3.00
70	0.1985	- 3.14	436.7	10.22	3.26
75	0.1701	- 3.05	374.2	10.73	3.52
80	0.1464	- 2.96	322.0	11.23	3.79
85	0.1265	- 2.88	278.2	11.72	4.07
90	0.1097	- 2.80	241.4	12.20	4.35
95	0.0956	- 2.73	210.2	12.66	4.65
100	0.0835	- 2.65	183.8	13.12	4.95
105	0.0733	- 2.58	161.3	13.56	5.25
110	0.0645	- 2.51	142.0	14.00	5.57
115	0.0570	- 2.45	125.4	14.42	5.89
120	0.0505	- 2.38	111.2	14.84	6.22
125	0.0449	- 2.32	98.81	15.24	6.56
130	0.0400	- 2.26	88.10	15.64	6.91
135	0.0358	- 2.21	78.78	16.03	7.26
140	0.0321	- 2.15	70.65	16.41	7.62
145	0.0289	- 2.10	63.52	16.78	7.99
150	0.0260	- 2.05	57.26	17.15	8.37

RESISTANCE VALUES AT INTERMEDIATE TEMPERATURES WITH R_{25} AT 4700 Ω					
T_{OPER} (°C)	CATALOG NUMBER 2381 615 13472 OR SAP NO. NTCS0805E4472JMT				
	R_T/R_{25}	TCR (%/K)	R_T (Ω)	5 % Tol. $\Delta R/R$ (%)	5 % Tol. ΔT (K)
- 40	21.9261	- 5.75	103 053	8.50	1.48
- 35	16.5224	- 5.57	77 655	8.16	1.46
- 30	12.5583	- 5.40	59 024	7.84	1.45
- 25	9.62492	- 5.24	45 237	7.53	1.44
- 20	7.43618	- 5.08	34 950	7.23	1.42
- 15	5.78976	- 4.93	27 212	6.94	1.41
- 10	4.54158	- 4.78	21 345	6.67	1.39
- 5	3.58813	- 4.64	16 864	6.40	1.38
0	2.85449	- 4.51	13 416	6.15	1.36
5	2.28599	- 4.38	10 744	5.90	1.35

RESISTANCE VALUES AT INTERMEDIATE TEMPERATURES WITH R_{25} AT 4700 Ω

T_{OPER} (°C)	CATALOG NUMBER 2381 615 13472 OR SAP NO. NTCS0805E4472JMT				
	R_T/R_{25}	TCR (%/K)	R_T (Ω)	5 % Tol. $\Delta R/R$ (%)	5 % Tol. ΔT (K)
10	1.84245	- 4.25	8659.5	5.66	1.33
15	1.49414	- 4.13	7022.5	5.44	1.32
20	1.21887	- 4.01	5728.7	5.21	1.30
25	1.00	- 3.90	4700.0	5.00	1.28
30	0.82494	- 3.80	3877.2	5.21	1.37
35	0.68413	- 3.69	3215.4	5.41	1.46
40	0.57025	- 3.59	2680.2	5.60	1.56
45	0.47765	- 3.50	2245.0	5.79	1.66
50	0.40198	- 3.40	1889.3	5.97	1.75
55	0.33984	- 3.31	1597.2	6.15	1.85
60	0.28856	- 3.23	1356.2	6.32	1.96
65	0.24606	- 3.15	1156.5	6.48	2.06
70	0.21067	- 3.07	990.1	6.64	2.17
75	0.18108	- 2.99	851.06	6.80	2.28
80	0.15623	- 2.91	734.29	6.95	2.39
85	0.13529	- 2.84	635.86	7.10	2.50
90	0.11757	- 2.77	552.56	7.24	2.61
95	0.10251	- 2.71	481.81	7.38	2.73
100	0.08968	- 2.64	421.50	7.52	2.85
105	0.07871	- 2.58	369.91	7.65	2.97
110	0.06928	- 2.52	325.64	7.78	3.09
115	0.06117	- 2.46	287.51	7.91	3.21
120	0.05416	- 2.41	254.57	8.03	3.34
125	0.04809	- 2.35	226.03	8.15	3.47
130	0.04282	- 2.30	201.23	8.27	3.60
135	0.03822	- 2.25	179.62	8.38	3.73
140	0.0342	- 2.20	160.73	8.49	3.86
145	0.03068	- 2.15	144.17	8.60	4.00
150	0.02758	- 2.10	129.63	8.70	4.14

RESISTANCE VALUES AT INTERMEDIATE TEMPERATURES WITH R_{25} AT 10 000 Ω

T_{OPER} (°C)	CATALOG NUMBER 2381 615 13103 OR SAP NO. NTCS0805E4103JMT				
	R_T/R_{25}	TCR (%/K)	R_T (Ω)	5 % Tol. $\Delta R/R$ (%)	5 % Tol. ΔT (K)
- 40	23.0973	- 5.84	230 973	8.50	1.45
- 35	17.3222	- 5.67	173 222	8.16	1.44
- 30	13.1054	- 5.49	131 054	7.84	1.43
- 25	9.99934	- 5.33	99 993	7.53	1.41
- 20	7.69193	- 5.17	76 919	7.23	1.40
- 15	5.96369	- 5.01	59 637	6.94	1.38
- 10	4.6589	- 4.86	46 589	6.67	1.37
- 5	3.66623	- 4.72	36 662	6.40	1.36
0	2.9054	- 4.58	29 054	6.15	1.34
5	2.31806	- 4.45	23 181	5.90	1.33
10	1.86153	- 4.32	18 615.3	5.66	1.31
15	1.50429	- 4.20	15 042.9	5.44	1.29
20	1.22295	- 4.08	12 229.5	5.21	1.28
25	1.00	- 3.97	10 000.0	5.00	1.26
30	0.82227	- 3.86	8222.7	5.21	1.35
35	0.67977	- 3.75	6797.7	5.41	1.44
40	0.56487	- 3.65	5648.7	5.60	1.53
45	0.47174	- 3.55	4717.4	5.79	1.63
50	0.39585	- 3.46	3958.5	5.97	1.72
55	0.33371	- 3.37	3337.1	6.15	1.82

RESISTANCE VALUES AT INTERMEDIATE TEMPERATURES WITH R_{25} AT 10 000 Ω					
T_{OPER} (°C)	CATALOG NUMBER 2381 615 13103 OR SAP NO. NTCS0805E4103JMT				
	R_T/R_{25}	TCR (%/K)	R_T (Ω)	5 % Tol. $\Delta R/R$ (%)	5 % Tol. ΔT (K)
60	0.28258	- 3.28	2825.8	6.32	1.92
65	0.24031	- 3.20	2403.1	6.48	2.03
70	0.20521	- 3.12	2052.1	6.64	2.13
75	0.17594	- 3.04	1759.37	6.80	2.24
80	0.15142	- 2.96	1514.20	6.95	2.35
85	0.1308	- 2.89	1308.04	7.10	2.46
90	0.1134	- 2.82	1134.00	7.24	2.57
95	0.09865	- 2.75	986.53	7.38	2.68
100	0.08611	- 2.69	861.10	7.52	2.80
105	0.0754	- 2.62	754.04	7.65	2.92
110	0.06624	- 2.56	662.36	7.78	3.04
115	0.05836	- 2.50	583.58	7.91	3.16
120	0.05157	- 2.45	515.67	8.03	3.28
125	0.4569	- 2.39	456.94	8.15	3.41
130	0.0406	- 2.34	406.01	8.27	3.54
135	0.03617	- 2.29	361.71	8.38	3.67
140	0.03231	- 2.23	323.06	8.49	3.80
145	0.02893	- 2.19	289.26	8.60	3.93
150	0.02596	- 2.14	259.61	8.70	4.07

RESISTANCE VALUES AT INTERMEDIATE TEMPERATURES WITH R_{25} AT 15 000 Ω					
T_{OPER} (°C)	CATALOG NUMBER 2381 615 13153 OR SAP NO. NTCS0805E4153JMT				
	R_T/R_{25}	TCR (%/K)	R_T (Ω)	5 % Tol. $\Delta R/R$ (%)	5 % Tol. ΔT (K)
- 40	23.3421	- 6.06	350 131	8.46	1.40
- 35	17.336	- 5.84	260 040	8.13	1.39
- 30	13.0176	- 5.62	195 263	7.81	1.39
- 25	9.87717	- 5.42	148 158	7.50	1.38
- 20	7.56881	- 5.23	113 532	7.21	1.38
- 15	5.8546	- 5.05	87 819	6.93	1.37
- 10	4.56918	- 4.87	68 538	6.65	1.37
- 5	3.59635	- 4.71	53 945	6.39	1.36
0	2.85356	- 4.55	42 803	6.14	1.35
5	2.28163	- 4.40	34 224	5.89	1.34
10	1.83772	- 4.26	27 566	5.66	1.33
15	1.49054	- 4.12	22 358	5.43	1.32
20	1.21701	- 3.99	18 255	5.21	1.31
25	1.00	- 3.87	15 000	5.00	1.29
30	0.83154	- 3.75	12 473	5.20	1.39
35	0.69408	- 3.63	10 411	5.40	1.49
40	0.58149	- 3.53	8722.3	5.60	1.59
45	0.48893	- 3.42	7334.0	5.78	1.69
50	0.41256	- 3.32	6188.5	5.96	1.79
55	0.34933	- 3.23	5240.0	6.14	1.90
60	0.2968	- 3.14	4451.9	6.31	2.01
65	0.253	- 3.05	3794.9	6.47	2.12
70	0.21635	- 2.97	3245.3	6.63	2.24
75	0.1856	- 2.89	2784.0	6.78	2.35
80	0.15971	- 2.81	2395.7	6.94	2.47
85	0.13785	- 2.73	2067.7	7.08	2.59
90	0.11932	- 2.66	1789.8	7.22	2.71
95	0.10358	- 2.59	1553.7	7.36	2.84
100	0.09016	- 2.53	1352.4	7.50	2.97
105	0.0787	- 2.46	1180.5	7.63	3.10

RESISTANCE VALUES AT INTERMEDIATE TEMPERATURES WITH R_{25} AT 15 000 Ω					
T_{OPER} (°C)	CATALOG NUMBER 2381 615 13153 OR SAP NO. NTCS0805E4153JMT				
	R_T/R_{25}	TCR (%/K)	R_T (Ω)	5 % Tol. $\Delta R/R$ (%)	5 % Tol. ΔT (K)
110	0.06887	- 2.40	1033.1	7.76	3.23
115	0.06043	- 2.34	906.41	7.88	3.36
120	0.05315	- 2.29	797.27	8.00	3.50
125	0.04687	- 2.23	702.99	8.12	3.64
130	0.04142	- 2.18	621.33	8.24	3.78
135	0.03669	- 2.13	550.42	8.35	3.92
140	0.03258	- 2.08	488.72	8.46	4.07
145	0.02899	- 2.03	434.88	8.57	4.22
150	0.02585	- 1.98	387.81	8.67	4.37

RESISTANCE VALUES AT INTERMEDIATE TEMPERATURES WITH R_{25} AT 22 000 Ω					
T_{OPER} (°C)	CATALOG NUMBER 2381 615 13223 OR SAP NO. NTCS0805E4223JHT				
	R_T/R_{25}	TCR (%/K)	R_T (Ω)	5 % Tol. $\Delta R/R$ (%)	5 % Tol. ΔT (K)
- 40	30.7958	- 6.42	677 507.99	16.71	2.60
- 35	22.4562	- 6.21	494 036.94	15.59	2.51
- 30	16.5404	- 6.02	363 888.31	14.50	2.41
- 25	12.3010	- 5.83	270 622.69	13.47	2.31
- 20	9.2333	- 5.65	203 131.71	12.47	2.21
- 15	6.9923	- 5.47	153 831.44	11.51	2.10
- 10	5.3406	- 5.31	117 492.27	10.59	2.00
- 5	4.1124	- 5.15	90 473.18	9.70	1.88
0	3.1916	- 4.99	70 215.46	8.85	1.77
5	2.4957	- 4.85	54 904.79	8.02	1.66
10	1.9656	- 4.70	43 243.49	7.23	1.54
15	1.5589	- 4.57	34 295.62	6.46	1.41
20	1.2446	- 4.44	27 380.67	5.72	1.29
25	1.0000	- 4.31	22 000.00	5.00	1.16
30	0.8084	- 4.19	17 785.47	5.69	1.36
35	0.6574	- 4.08	14 463.33	6.36	1.56
40	0.5377	- 3.97	11 828.57	7.01	1.77
45	0.4421	- 3.86	9726.63	7.64	1.98
50	0.3655	- 3.76	8040.24	8.25	2.20
55	0.3036	- 3.66	6679.83	8.84	2.42
60	0.2535	- 3.56	5576.61	9.41	2.64
65	0.2126	- 3.47	4677.41	9.97	2.87
70	0.1791	- 3.38	3940.90	10.51	3.11
75	0.1516	- 3.30	3334.80	11.03	3.35
80	0.1288	- 3.22	2833.74	11.54	3.59
85	0.1099	- 3.14	2417.69	12.04	3.84
90	0.0941	- 3.06	2070.77	12.52	4.09
95	0.0809	- 2.99	1780.29	12.99	4.35
100	0.0698	- 2.92	1536.11	13.45	4.61
105	0.0605	- 2.85	1330.07	13.89	4.88
110	0.0525	- 2.78	1155.56	14.32	5.15
115	0.0458	- 2.72	1007.23	14.74	5.43
120	0.0400	- 2.65	880.71	15.15	5.71
125	0.0351	- 2.59	772.44	15.55	6.00
130	0.0309	- 2.54	679.48	15.94	6.29
135	0.0272	- 2.48	599.41	16.32	6.58
140	0.0241	- 2.43	530.24	16.70	6.88
145	0.0214	- 2.37	470.31	17.06	7.19
150	0.0190	- 2.32	418.23	17.41	7.50

RESISTANCE VALUES AT INTERMEDIATE TEMPERATURES WITH R_{25} AT 33 000 Ω					
T_{OPER} (°C)	CATALOG NUMBER 2381 615 13333 OR SAP NO. NTCS0805E4333JHT				
	R_T/R_{25}	TCR (%/K)	R_T (Ω)	5 % Tol. $\Delta R/R$ (%)	5 % Tol. ΔT (K)
- 40	32.68563	- 6.59	1 078 626	16.66	2.53
- 35	23.6478	- 6.36	780 377	15.54	2.44
- 30	17.29545	- 6.15	570 750	14.46	2.35
- 25	12.78101	- 5.95	421 773	13.43	2.26
- 20	9.538645	- 5.76	314 775	12.44	2.16
- 15	7.186265	- 5.57	237 147	11.48	2.06
- 10	5.463007	- 5.40	180 279	10.56	1.96
- 5	4.18889	- 5.23	138 233	9.68	1.85
0	3.238476	- 5.07	106 870	8.83	1.74
5	2.523488	- 4.91	83 275	8.01	1.63
10	1.9812223	- 4.77	65 380.4	7.22	1.51
15	1.566743	- 4.62	51 702.5	6.45	1.40
20	1.247561	- 4.49	41 169.5	5.71	1.27
25	1.00	- 4.36	33 000.0	5.00	1.15
30	0.806666	- 4.24	26 620.0	5.69	1.34
35	0.654682	- 4.12	21 604.5	6.36	1.54
40	0.534445	- 4.00	17 636.7	7.00	1.75
45	0.438742	- 3.89	14 478.5	7.63	1.96
50	0.362121	- 3.79	11 950.0	8.24	2.18
55	0.30043	- 3.68	9914.2	8.82	2.39
60	0.250491	- 3.59	8266.2	9.40	2.62
65	0.209854	- 3.49	6925.2	9.95	2.85
70	0.17662	- 3.40	5828.5	10.49	3.08
75	0.149308	- 3.32	4927.18	11.01	3.32
80	0.126759	- 3.23	4183.06	11.52	3.56
85	0.108058	- 3.15	3565.93	12.01	3.81
90	0.092482	- 3.07	3051.89	12.49	4.06
95	0.079453	- 3.00	2621.93	12.96	4.32
100	0.068511	- 2.93	2260.85	13.41	4.58
105	0.059286	- 2.86	1956.42	13.85	4.85
110	0.051479	- 2.79	1698.80	14.28	5.12
115	0.044848	- 2.73	1479.98	14.70	5.39
120	0.039196	- 2.66	1293.47	15.11	5.67
125	0.034363	- 2.60	1133.96	15.51	5.96
130	0.030215	- 2.54	997.09	15.90	6.25
135	0.026645	- 2.49	879.28	16.28	6.55
140	0.023562	- 2.43	777.55	16.65	6.84
145	0.020892	- 2.38	689.45	17.01	7.15
150	0.018573	- 2.33	612.93	17.36	7.46

RESISTANCE VALUES AT INTERMEDIATE TEMPERATURES WITH R_{25} AT 47 000 Ω					
T_{OPER} (°C)	CATALOG NUMBER 2381 615 13473 OR SAP NO. NTCS0805E4473JXT				
	R_T/R_{25}	TCR (%/K)	R_T (Ω)	5 % Tol. $\Delta R/R$ (%)	5 % Tol. ΔT (K)
- 40	37.156	- 6.82	1 746 331	11.02	1.62
- 35	26.5657	- 6.60	1 248 589	10.44	1.58
- 30	19.2065	- 6.38	902 705	9.89	1.55
- 25	14.0347	- 6.17	659 632	9.35	1.52
- 20	10.3608	- 5.97	486 956	8.84	1.48
- 15	7.72365	- 5.78	363 012	8.35	1.44
- 10	5.81188	- 5.60	273 158	7.87	1.41
- 5	4.41266	- 5.42	207 395	7.42	1.37
0	3.37917	- 5.25	158 821	6.98	1.33
5	2.60609	- 5.09	122 627	6.55	1.29

RESISTANCE VALUES AT INTERMEDIATE TEMPERATURES WITH R_{25} AT 47 000 Ω

T_{OPER} (°C)	CATALOG NUMBER 2381 615 13473 OR SAP NO. NTCS0805E4473JXT				
	R_T/R_{25}	TCR (%/K)	R_T (Ω)	5 % Tol. $\Delta R/R$ (%)	5 % Tol. ΔT (K)
10	2.03042	- 4.94	95 430	6.14	1.24
15	1.59206	- 4.79	74 827	5.75	1.20
20	1.2574	- 4.65	59 098	5.37	1.15
25	1.00	- 4.51	47 000	5.00	1.11
30	0.8006	- 4.38	37 628	5.36	1.22
35	0.64506	- 4.26	30 318	5.70	1.34
40	0.52294	- 4.14	24 578	6.04	1.46
45	0.42644	- 4.02	20 043	6.36	1.58
50	0.34971	- 3.91	16 437	6.67	1.71
55	0.28836	- 3.81	13 553	6.98	1.83
60	0.23901	- 3.70	11 233	7.27	1.96
65	0.1991	- 3.60	9358	7.56	2.10
70	0.16666	- 3.51	7833	7.83	2.23
75	0.14016	- 3.42	6587	8.10	2.37
80	0.1184	- 3.33	5565	8.37	2.51
85	0.10045	- 3.25	4721	8.62	2.66
90	0.08557	- 3.16	4022	8.87	2.80
95	0.07319	- 3.09	3440	9.11	2.95
100	0.06285	- 3.01	2954	9.34	3.10
105	0.05416	- 2.94	2546	9.57	3.26
110	0.04685	- 2.87	2202	9.79	3.42
115	0.04066	- 2.80	1911	10.01	3.58
120	0.03541	- 2.73	1664	10.22	3.74
125	0.03094	- 2.67	1454	10.43	3.91
130	0.02711	- 2.61	1274	10.63	4.08
135	0.02383	- 2.55	1120	10.82	4.25
140	0.02101	- 2.49	987.6	11.02	4.42
145	0.01858	- 2.44	873.2	11.20	4.60
150	0.01647	- 2.38	774.1	11.38	4.78

RESISTANCE VALUES AT INTERMEDIATE TEMPERATURES WITH R_{25} AT 68 000 Ω

T_{OPER} (°C)	CATALOG NUMBER 2381 615 13683 OR SAP NO. NTCS0805E4683JMT				
	R_T/R_{25}	TCR (%/K)	R_T (Ω)	5 % Tol. $\Delta R/R$ (%)	5 % Tol. ΔT (K)
- 40	25.783	- 6.07	1 753 245	16.02	2.64
- 35	19.1253	- 5.88	1 300 524	14.96	2.54
- 30	14.32	- 5.70	973 759.8	13.94	2.45
- 25	10.8187	- 5.52	735 674.7	12.96	2.35
- 20	8.24438	- 5.35	560 618	12.02	2.25
- 15	6.33489	- 5.19	430 772.3	11.12	2.14
- 10	4.90655	- 5.03	333 645.6	10.26	2.04
- 5	3.82943	- 4.88	260 401.1	9.42	1.93
0	3.01078	- 4.74	204 733.3	8.62	1.82
5	2.3839	- 4.60	162 105	7.84	1.70
10	1.90036	- 4.47	129 224.7	7.09	1.59
15	1.52479	- 4.34	103 686	6.37	1.47
20	1.23112	- 4.22	83 716.26	5.67	1.35
25	1.00	- 4.10	68 000	5.00	1.22
30	0.81697	- 3.99	55 554.14	5.65	1.42
35	0.67116	- 3.88	45 638.98	6.28	1.62
40	0.55433	- 3.77	37 694.27	6.89	1.83
45	0.46019	- 3.67	31 292.96	7.48	2.04
50	0.38393	- 3.58	26 107.56	8.06	2.25
55	0.32184	- 3.48	21 885.36	8.61	2.47

RESISTANCE VALUES AT INTERMEDIATE TEMPERATURES WITH R_{25} AT 68 000 Ω					
T_{OPER} (°C)	CATALOG NUMBER 2381 615 13683 OR SAP NO. NTCS0805E4683JMT				
	R_T/R_{25}	TCR (%/K)	R_T (Ω)	5 % Tol. $\Delta R/R$ (%)	5 % Tol. ΔT (K)
60	0.27103	- 3.39	18 430.3	9.15	2.70
65	0.22926	- 3.30	15 589.41	9.67	2.93
70	0.19475	- 3.22	13 242.67	10.18	3.16
75	0.16611	- 3.14	11 295.44	10.67	3.40
80	0.14225	- 3.06	9672.73	11.15	3.64
85	0.12228	- 2.99	8314.81	11.62	3.89
90	0.1055	- 2.92	7173.88	12.07	4.14
95	0.09135	- 2.85	6211.55	12.51	4.40
100	0.07936	- 2.78	5396.80	12.94	4.66
105	0.06918	- 2.71	4704.48	13.36	4.92
110	0.0605	- 2.65	4114.12	13.77	5.19
115	0.05307	- 2.59	3609	14.16	5.47
120	0.0467	- 2.53	3175.38	14.55	5.75
125	0.04121	- 2.47	2801.96	14.92	6.03
130	0.03646	- 2.42	2479.38	15.29	6.32
135	0.03235	- 2.37	2199.88	15.65	6.62
140	0.02878	- 2.31	1957.02	16.00	6.91
145	0.02567	- 2.26	1745.39	16.34	7.22
150	0.02295	- 2.22	1560.48	16.67	7.52

RESISTANCE VALUES AT INTERMEDIATE TEMPERATURES WITH R_{25} AT 100 000 Ω					
T_{OPER} (°C)	CATALOG NUMBER 2381 615 13104 OR SAP NO. NTCS0805E4104JMT				
	R_T/R_{25}	TCR (%/K)	R_T (Ω)	5 % Tol. $\Delta R/R$ (%)	5 % Tol. ΔT (K)
- 40	23.8997	- 5.92	2 389 969	8.58	1.45
- 35	17.8586	- 5.74	1 785 861	8.24	1.44
- 30	13.465	- 5.56	1 346 502	7.91	1.42
- 25	10.2407	- 5.39	1 024 071	7.59	1.41
- 20	7.85378	- 5.23	785 378.1	7.28	1.39
- 15	6.07181	- 5.07	607 181.2	6.99	1.38
- 10	4.73061	- 4.92	473 061.1	6.71	1.36
- 5	3.7132	- 4.77	371 319.7	6.44	1.35
0	2.93554	- 4.63	293 553.6	6.18	1.33
5	2.33677	- 4.50	233 677.1	5.92	1.32
10	1.87249	- 4.37	187 249.2	5.68	1.30
15	1.51004	- 4.24	151 003.9	5.45	1.28
20	1.22522	- 4.12	122 522.4	5.22	1.27
25	1.00	- 4.01	100 000	5.00	1.25
30	0.82081	- 3.89	82 081.36	5.21	1.34
35	0.67742	- 3.79	67 741.67	5.42	1.43
40	0.56201	- 3.68	56 201.1	5.62	1.52
45	0.46863	- 3.59	46 862.56	5.81	1.62
50	0.39266	- 3.49	39 266.09	5.99	1.72
55	0.33055	- 3.40	33 055.34	6.18	1.82
60	0.27953	- 3.31	27 952.66	6.35	1.92
65	0.23741	- 3.22	23 740.56	6.52	2.02
70	0.20248	- 3.14	20 247.74	6.69	2.13
75	0.17339	- 3.06	17 338.63	6.85	2.24
80	0.14905	- 2.99	14 905.37	7.00	2.34
85	0.12862	- 2.91	12 861.77	7.15	2.46
90	0.11139	- 2.84	11 138.64	7.30	2.57
95	0.0968	- 2.77	9680.13	7.44	2.68
100	0.08441	- 2.71	8441.05	7.58	2.80
105	0.07385	- 2.64	7384.60	7.72	2.92

RESISTANCE VALUES AT INTERMEDIATE TEMPERATURES WITH R_{25} AT 100 000 Ω					
T_{OPER} (°C)	CATALOG NUMBER 2381 615 13104 OR SAP NO. NTCS0805E4104JMT				
	R_T/R_{25}	TCR (%/K)	R_T (Ω)	5 % Tol. $\Delta R/R$ (%)	5 % Tol. ΔT (K)
110	0.06481	- 2.58	6480.76	7.85	3.04
115	0.05705	- 2.52	5704.87	7.98	3.17
120	0.05037	- 2.46	5036.67	8.11	3.29
125	0.04459	- 2.41	4459.40	8.23	3.42
130	0.03959	- 2.35	3959.18	8.35	3.55
135	0.03524	- 2.30	3524.43	8.46	3.68
140	0.03146	- 2.25	3145.52	8.58	3.81
145	0.02814	- 2.20	2814.35	8.69	3.95
150	0.02524	- 2.15	2524.15	8.80	4.09

RESISTANCE VALUES AT INTERMEDIATE TEMPERATURES WITH R_{25} AT 330 000 Ω					
T_{OPER} (°C)	CATALOG NUMBER 2381 615 13334 OR SAP NO. NTCS0805E4334JXT				
	R_T/R_{25}	TCR (%/K)	R_T (Ω)	5 % Tol. $\Delta R/R$ (%)	5 % Tol. ΔT (K)
- 40	33.3434	- 6.58	11 003.3	16.83	2.56
- 35	24.1285	- 6.36	7962.4	15.69	2.46
- 30	17.6422	- 6.16	5821.9	14.60	2.37
- 25	13.0283	- 5.97	4299.4	13.55	2.27
- 20	9.7132	- 5.78	3205.4	12.54	2.17
- 15	7.3081	- 5.60	2411.7	11.57	2.07
- 10	5.5470	- 5.43	1830.5	10.64	1.96
- 5	4.2457	- 5.27	1401.1	9.75	1.85
0	3.2760	- 5.11	1081.1	8.88	1.74
5	2.5474	- 4.96	840.63	8.05	1.62
10	1.9955	- 4.81	658.52	7.25	1.51
15	1.5744	- 4.67	519.55	6.47	1.39
20	1.2506	- 4.54	412.71	5.72	1.26
25	1.0000	- 4.41	330.00	5.00	1.13
30	0.8046	- 4.29	265.53	5.70	1.33
35	0.6514	- 4.17	214.95	6.38	1.53
40	0.5304	- 4.05	175.02	7.03	1.73
45	0.4343	- 3.94	143.31	7.67	1.94
50	0.3575	- 3.84	117.97	8.28	2.16
55	0.2958	- 3.74	97.62	8.88	2.36
60	0.2460	- 3.64	81.18	9.46	2.60
65	0.2056	- 3.55	67.83	10.02	2.83
70	0.1726	- 3.45	56.94	10.56	3.06
75	0.1455	- 3.37	48.02	11.09	3.29
80	0.1232	- 3.28	40.66	11.61	3.53
85	0.1048	- 3.20	34.57	12.11	3.78
90	0.0894	- 3.12	29.52	12.59	4.03
95	0.0767	- 3.05	25.30	13.07	4.29
100	0.0659	- 2.98	21.76	13.53	4.54
105	0.0569	- 2.91	18.78	13.97	4.81
110	0.0493	- 2.84	16.27	14.41	5.08
115	0.0429	- 2.77	14.14	14.84	5.35
120	0.0374	- 2.71	12.33	15.25	5.63
125	0.0327	- 2.65	10.79	15.65	5.91
130	0.0287	- 2.59	9.463	16.05	6.20
135	0.0252	- 2.53	8.326	16.43	6.49
140	0.0223	- 2.48	7.347	16.81	6.79
145	0.0197	- 2.42	6.500	17.17	7.09
150	0.0175	- 2.37	5.767	17.53	7.40

RESISTANCE VALUES AT INTERMEDIATE TEMPERATURES WITH R_{25} AT 470 000 Ω					
T_{OPER} (°C)	CATALOG NUMBER 2381 615 13474 OR SAP NO. NTCS0805E4474JXT				
	R_T/R_{25}	TCR (%/K)	R_T (Ω)	5 % Tol. $\Delta R/R$ (%)	5 % Tol. ΔT (K)
- 40	37.1288	- 6.79	17450.5	17.16	2.53
- 35	26.5910	- 6.57	12497.8	15.99	2.44
- 30	19.2505	- 6.36	9047.8	14.87	2.34
- 25	14.0812	- 6.15	6618.2	13.79	2.24
- 20	10.4026	- 5.96	4889.2	12.76	2.14
- 15	7.7582	- 5.77	3646.4	11.76	2.04
- 10	5.8389	- 5.60	2744.3	10.80	1.93
- 5	4.4329	- 5.43	2083.5	9.88	1.82
0	3.3937	- 5.26	1595.0	8.99	1.71
5	2.6190	- 5.10	1230.93	8.14	1.59
10	2.0367	- 4.95	957.26	7.31	1.48
15	1.5956	- 4.81	749.94	6.51	1.35
20	1.2589	- 4.67	591.68	5.74	1.23
25	1.0000	- 4.54	470.00	5.00	1.10
30	0.7995	- 4.41	375.78	5.72	1.30
35	0.6433	- 4.29	302.34	6.42	1.50
40	0.5207	- 4.17	244.71	7.09	1.70
45	0.4239	- 4.06	199.22	7.74	1.91
50	0.3470	- 3.95	163.08	8.38	2.12
55	0.2856	- 3.84	134.22	8.99	2.34
60	0.2362	- 3.74	111.03	9.58	2.56
65	0.1964	- 3.65	92.30	10.16	2.79
70	0.1640	- 3.55	77.10	10.72	3.02
75	0.1377	- 3.46	64.70	11.27	3.25
80	0.1160	- 3.38	54.53	11.80	3.49
85	0.0982	- 3.29	46.16	12.31	3.74
90	0.0835	- 3.21	39.23	12.81	3.99
95	0.0712	- 3.13	33.48	13.30	4.24
100	0.0610	- 3.06	28.68	13.77	4.50
105	0.0525	- 2.99	24.66	14.23	4.77
110	0.0453	- 2.92	21.27	14.68	5.03
115	0.0392	- 2.85	18.42	15.12	5.31
120	0.0340	- 2.78	16.00	15.54	5.58
125	0.0297	- 2.72	13.94	15.96	5.87
130	0.0259	- 2.66	12.189	16.36	6.15
135	0.0227	- 2.60	10.688	16.76	6.45
140	0.0200	- 2.54	9.398	17.15	6.74
145	0.0176	- 2.49	8.288	17.52	7.05
150	0.0156	- 2.43	7.329	17.89	7.35

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