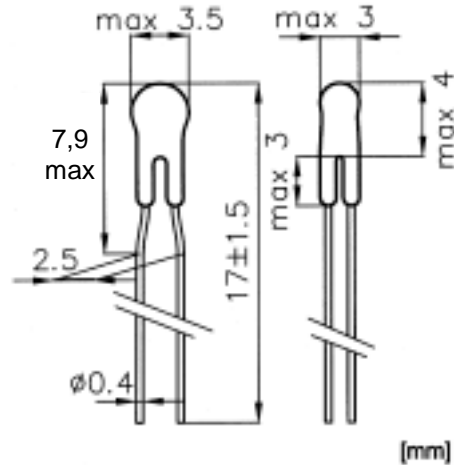


Data sheet
Application

Temperature measurement

Version

NTC disc soldered to wire
 (Cu-wire; tinned, diameter 0,4mm)
 and coated with epoxy resin (color black)
 overall length = $17 \pm 1,5$ mm
 head-diameter = 3,5 mm max
 head-thickness = 3 mm max
 lead-spacing = 2,5 mm


Ratings and characteristics

Climatic category (IEC 60068-1)
 Lower category temperature
 Higher category temperature

[°C] : **55/155/56**
 [°C] : **-55**
 [°C] : **155**

Rated resistance R_N // Tolerance
 Rated temperature

R_N [Ω // %] : **10 000 // ± 1**
 T_N [°C] : **25**

B-value : $B_{(25/100)}$ // Tolerance
 R/T-Curve no. // R_{25}

B_N [K//%] : **3460 // ± 1**
 [n//Ω] : **2908 // 10 000**

Max power rating at 25°C

P_{25} [mW] : **180**

Dissipation factor (in air)
 Thermal cooling time constant (in air)

δ_{th} [mW/K] : **approx. 4**
 τ_C [s] : **approx. 10**

Remarks

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ISSUE DATE	30.07.02	ISSUE	a	PUBLISHER	KSS PE	PAGE	1/3
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Product division: NTC

Product type: S881/10k/A1

Product name: NTC Sensor

Ordering code: B57881S0103A001

Data sheet

NTC Resistance Temperature Curve

R/T-Curve 2908 / A01
 R at 25°C 10000 [Ω]
 B(25/100) 3460 [K] ± 1 [%]
 RN at 25 °C 10000 [Ω] ± 1 [%]

T [°C]	R_nom [Ω]	R_min [Ω]	R_max [Ω]	ΔR [±%]
-50	337293	320596	353990	5,0
-45	253325	241646	265005	4,6
-40	191908	183684	200132	4,3
-35	146593	140768	152418	4,0
-30	112877	108729	117025	3,7
-25	87588	84620	90556	3,4
-20	68471	66339	70602	3,1
-15	53910	52375	55446	2,8
-10	42739	41631	43848	2,6
-5	34109	33308	34910	2,3
0	27396	26817	27974	2,1
5	22140	21722	22557	1,9
10	17999	17699	18298	1,7
15	14716	14502	14930	1,5
20	12099	11948	12250	1,2
25	10000	9900	10100	1,0
30	8308	8205	8411	1,2
35	6936	6837	7035	1,4
40	5819	5725	5912	1,6
45	4904	4816	4991	1,8
50	4151	4070	4232	1,9
55	3529	3454	3603	2,1
60	3012	2944	3081	2,3
65	2582	2519	2644	2,4
70	2221	2164	2278	2,6
75	1918	1866	1970	2,7
80	1663	1615	1710	2,9
85	1446	1403	1489	3,0
90	1262	1222	1301	3,1
95	1105	1069	1141	3,3
100	970,2	937,4	1003	3,4
105	854,6	824,7	884,6	3,5
110	755,1	727,7	782,4	3,6
115	669,0	644,0	694,0	3,7
120	594,4	571,5	617,3	3,9

ISSUE DATE	30.07.02	ISSUE	a	PUBLISHER	KSS PE	PAGE	2/3
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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: 155°C t: 1000 h	< 2 %	No visible damage
Storage in damp heat, steady state	IEC 60068-2-3	Temperature of air: 40°C Relative humidity of air: 93 % Duration: 56 days	< 1 %	No visible damage
Rapid temperature cycling	IEC 60068-2-14	Lower test temperature: -55°C Upper test temperature: 155°C Time to change from lower to upper temperature : < 30 sec Number of cycles: 100	< 2 %	No visible damage
Endurance		P _{max} : 450 mW t: 1000 h	< 3 %	No visible damage
Long-term stability (empirical value)		Temperatur: 70°C Duration: 10 000 h	< 3 %	No visible damage

ISSUE DATE	30.07.02	ISSUE	a	PUBLISHER	KSS PE	PAGE	3/3
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