Technical Specification of Temperature Sensor

Temperature Sensor	MJSE-502-3470-1-600-XH	$R_{25℃}$=5KΩ ±1%
		$B_{25/50}$=3470K±1%

1、GENERAL

This specification defines characteristics of a temperature sensor type:
MJSE-502-3470-1-600-XH

2、ELECTRICAL CHARACTERISTICS

Item	Specified limits	Test Method and Conditions
2-1. Zero power Resistance:R25	5kΩ ±1% 5kilo ohms±1%	
2-2. B-Value: B25/50	3470k±1%	
2-3. Thermal Dissipation Constant	6Mw/°C	at 25°Cin still air
2-4. Insulation Resistance	100MΩMin.	By DC 1000V megger
2-5. Operating Temperature Range	-30~105°C -30 to 105°C	
2-6. Storage Temperature Range	-30~105°C -30 to 105°C	

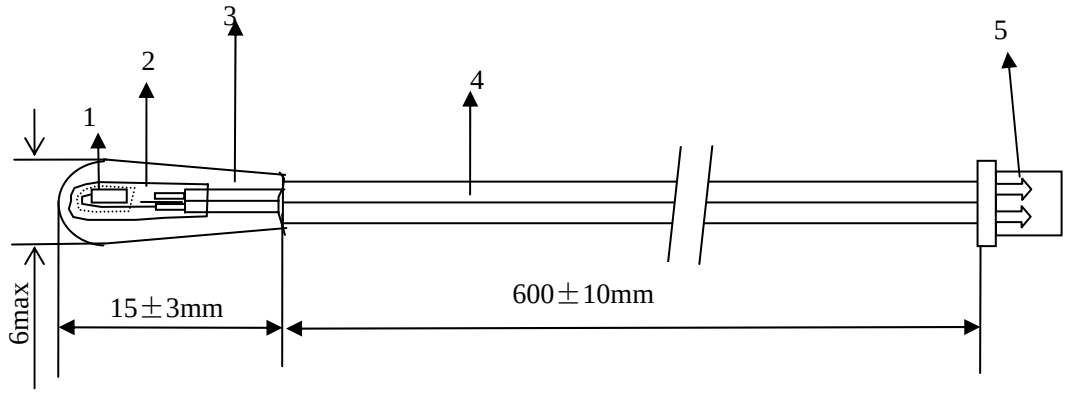
3、MECHANICAL CHARACTERISTICS

Item	Specified limits	Test Method and Conditions
3-1.Pull Test	Must be No Damage	Gradually between the terminals and conductors applied 10N (1 kg) tension, and for 10 seconds

4、RELIABILITY

Item	Specified limits	Test Method and Conditions
4-1. high temperature storage	△R25≤±1% △B25/50≤±1%	85℃，1000hours
4-2. low temperature storage	△R25≤±1% △B25/50≤±1%	-40℃，1000hours
4-3. high humidity storage	△R25≤±1% △B25/50≤±1%	60℃ and 95%RH, 1000hours
4-4. temperature cycle test	△R25≤±1% △B25/50≤±1%	-20℃，keep 20minutes then 25℃， keep 5 minutes and then 85℃，keep 20 minutes，circulate 1000 times like this

5、STRUCTURE AND DIMENSION



Sym	Name	Specified Limits Material
1	Thermistor	MJD-502-3470-1
2	Under Coating	Insulation material (elastical)
3	Filling Resin	Epoxy Resin
4	Lead Wire	UL AWM2651, 26AWG, VW-1, temperature 105 ° C, voltage 300V (Black)
5	Connector	XH2.54-2 Type Terminal

6、Table of Resistance Related to Temperature (R-T Table)

T（℃）	R（KΩ）	T（℃）	R（KΩ）	T（℃）	R（KΩ）	T（℃）	R（KΩ）
-20	31.281	20	6.268	60	1.463	100	0.451
-19	29.847	21	5.987	61	1.408	101	0.44
-18	28.489	22	5.721	62	1.355	102	0.428
-17	27.2022	23	5.468	63	1.304	103	0.418
-16	25.983	24	5.228	64	1.256	104	0.407
-15	24.828	25	5	65	1.21	105	0.397
-14	23.732	26	4.815	66	1.165		
-13	22.692	27	4.637	67	1.123		
-12	21.706	28	4.468	68	1.082		
-11	20.769	29	4.305	69	1.043		
-10	19.8795	30	4.15	70	1.006		
-9	19.033	31	3.997	71	0.981		
-8	18.229	32	3.8502	72	0.957		
-7	17.464	33	3.71	73	0.934		
-6	16.7368	34	3.576	74	0.912		
-5	16.045	35	3.447	75	0.89		
-4	15.386	36	3.323	76	0.869		
-3	14.76	37	3.206	77	0.848		
-2	14.163	38	3.092	78	0.828		
-1	13.594	39	2.984	79	0.809		
0	13.052	40	2.88	80	0.79		
1	12.531	41	2.778	81	0.767		
2	12.0335	42	2.681	82	0.745		
3	11.56	43	2.587	83	0.724		
4	11.107	44	2.497	84	0.703		
5	10.676	45	2.411	85	0.683		
6	10.265	46	2.329	86	0.664		
7	9.871	47	2.249	87	0.645		
8	9.496	48	2.173	88	0.627		
9	9.138	49	2.1001	89	0.61		
10	8.795	50	2.03	90	0.593		
11	8.493	51	1.963	91	0.577		
12	8.203	52	1.898	92	0.561		
13	7.925	53	1.836	93	0.545		
14	7.659	54	1.776	94	0.531		
15	7.403	55	1.719	95	0.516		
16	7.157	56	1.664	96	0.502		
17	6.921	57	1.611	97	0.489		
18	6.695	58	1.56	98	0.476		
19	6.477	59	1.5103	99	0.463		