MODEL 44906

GSFC Space Qualified Thermistor

- Fully Qualified to GSFC S311-P18-06S7R6 Specification for Flight Use
- 5000 ohm Resistance @ 25°C
- Interchangeable ±0.1°C, 0°C to 70°C
- Pressed Disk Ceramic Sensor
- High sensitivity
- Thermally conductive epoxy coating that meet Outgassing Requirements
- 32 AWG, 3” (7.6 cm) long Solder plated copper leads
- Serialized and Color Coded for Identification

NASA Qualified epoxy encapsulated precision interchangeable NTC thermistors for use in extended space flight applications. All parts are fully flight tested and characterized. Line re-qualified yearly per MIL-PRF-23648 requirements as specified in S311-P18 document. Resistance (Type 06) available in other lead and resistance configurations per S311-P18.

FEATURES

- Flight Qualified
- 5000 ohm Resistance @ 25°C
- Interchangeability
- High Sensitivity
- Thermally Conductive Epoxy Coating Exhibits <0.66% TML, <0.01% CVCM, 0.10% WVR when tested per ASTM E-595-90

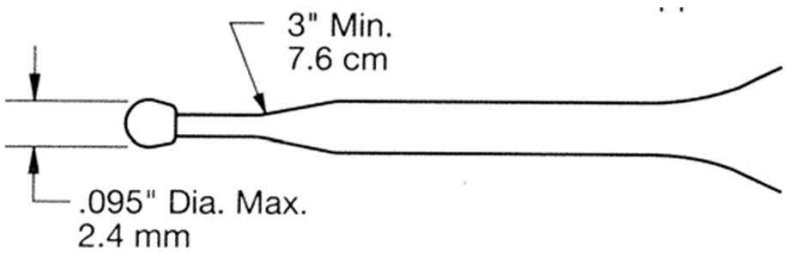
APPLICATIONS

- Extended Space Applications
- Low and Mid Range Temperature Applications
- Tight Tolerance Instrumentation
- Applications Requiring Sensing Small Changes in Temperature
- Applications with Outgassing Requirements

PERFORMANCE SPECS

Parameter	Units	Value
Resistance @ 25°C	Ohms	5000
Tolerance 0°C to 70°C	°C	± 0.1
Beta Value 25/85	K	3987
Tolerance on Beta Value	%	0.4
Time response in air	Seconds	< 10
Dissipation Constant in air	mW/°C	1
Insulation Resistance (Min. of 100 Mohms for 1 sec.)	Volts	500

MECHANICAL DETAILS



TYPICAL PERFORMANCE CURVES (RESISTANCE OF INDIVIDUAL THERMISTORS)

Temp °C	K-Ohms
-55	482.2
-54	447.9
-53	416.3
-52	387.1
-51	360.2
-50	335.3
-49	312.3
-48	291.0
-47	271.3
-46	253.0
-45	236.2
-44	220.5
-43	205.9
-42	192.5
-41	180.0
-40	168.3
-39	157.5
-38	147.5
-37	138.2
-36	129.5
-35	121.4
-34	113.9
-33	106.9
-32	100.3
-31	94.22
-30	88.53
-29	83.22
-28	78.26
-27	73.62
-26	69.29
-25	65.24
-24	61.45
-23	57.90
-22	54.58
-21	51.47
-20	48.56
-19	45.83
-18	43.27
-17	40.86
-16	38.61

Temp °C	K-Ohms
-15	36.49
-14	34.50
-13	32.63
-12	30.88
-11	29.23
-10	27.67
-9	26.21
-8	24.83
-7	23.54
-6	22.32
-5	21.17
-4	20.08
-3	19.06
-2	18.10
-1	17.19
0	16.33
1	15.52
2	14.75
3	14.03
4	13.34
5	12.70
6	12.09
7	11.51
8	10.96
9	10.44
10	9.951
11	9.486
12	9.046
13	8.628
14	8.232
15	7.857
16	7.500
17	7.162
18	6.841
19	6.536
20	6.247
21	5.972
22	5.710
23	5.462
24	5.225

Temp °C	K-Ohms
25	5.000
26	4.787
27	4.583
28	4.389
29	4.204
30	4.029
31	3.861
32	3.702
33	3.549
34	3.404
35	3.266
36	3.134
37	3.008
38	2.888
39	2.773
40	2.663
41	2.559
42	2.459
43	2.363
44	2.272
45	2.184
46	2.101
47	2.021
48	1.944
49	1.871
50	1.801
51	1.734
52	1.670
53	1.608
54	1.549
55	1.493
56	1.439
57	1.387
58	1.337
59	1.290
60	1.244
61	1.200
62	1.158
63	1.117
64	1.079

Temp °C	K-Ohms
65	1.041
66	1.006
67	0.9711
68	0.9380
69	0.9063
70	0.8757

ORDERING INFORMATION

Part Number	Description	Ω @25ºC
095805	44906 THERM GSFC 311P18-06S7R6	5,000
SP44906X-xx	44906X GSFC 311P18-06, Various Lead lengths and Types	5,000

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