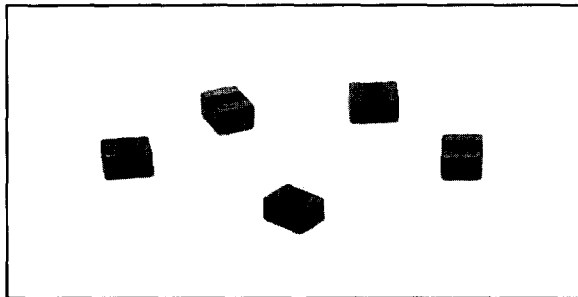


# MODELS 7 and 8 NTC Thermistors

## Hybrid Chip



### FEATURES

- Model 7 - Wraparound terminations
- Model 8 - Top and bottom terminations
- Flow solderable
- Can be mounted with conductive epoxy
- Automatic placement capability
- 8mm tape and reel available
- High density construction ensures long life and reliability

### ELECTRICAL SPECIFICATIONS

**Resistance Range:** 5000 ohm to 1 Megohm.

**Temperature Coefficient:**  
From - 3.9%/°C to - 5.26%/°C.

**Tolerance:** ± 10% at 25°C standard.  
Tighter tolerances down to ± 5% or less are available.

Special resistance values and temperature coefficients are available to meet your requirements.

Techno Components hybrid chip thermistors are produced by the same exacting manufacturing process as the Leaded Chip Thermistor and demonstrate the same electrical characteristics. Only the configuration is changed in order that they may be mounted in hybrid circuits utilizing the same equipment and techniques employed in the installation of other hybrid components.

Techno Components hybrid chip thermistors are available with either silver or platinum-palladium-silver terminations to meet your process requirements.

### RMF (Resistance Multiplying Factor)

TEMP. °C	MATERIAL/BETA 25°C/75°C				
	J/3964*	D/3477*	M/4437*	U/3925*	X/4842*
-55	96.77	53.4	126.1	—	176.4
-50	67.23	38.99	86.92	56.49	119.0
-40	33.72	21.45	42.69	29.49	98.0
-30	17.72	12.27	21.84	16.03	27.45
-20	9.713	7.278	11.66	9.04	18.981
-10	5.534	4.459	6.385	5.267	7.2731
0	3.266	2.815	3.621	3.166	4.018
10	1.990	1.826	2.123	1.958	2.236
20	1.249	1.215	1.277	1.243	1.3031
25	1.0	1.0	1.0	1.0	1.0
30	.8056	.8276	.7880	.8090	.7723
37	.6015	.6406	.5702	.6070	.5434
40	.5326	.5758	.4981	.5383	.4690
50	.3602	.4086	.3219	.3657	.2914
60	.2489	.2954	.2124	.2533	.1849
70	.1753	.2172	.1429	.1786	.1198
80	.1258	.1622	.09790	.1281	.07902
90	.09174	.1229	.06823	.09330	.05307
100	.06798	.09446	.04832	.06897	.03624
110	.05110	.07350	.03474	.05167	.02514
120	.03894	.05788	.02533	.03920	.01770
125	.03416	.05158	.02174	.03430	.01493
130	.03005	.04609	.01872	.03010	.01264
140	.02347	.03708	.01401	.02337	.00915
150	.01853	.03012	.01061	.01834	.00670

\* The type material is defined in the part number by the letter following the first digit in the number.

NOTE: For 1°C Ratio Tables - contact factory.

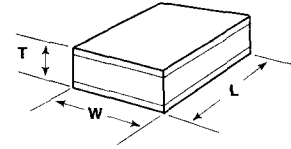
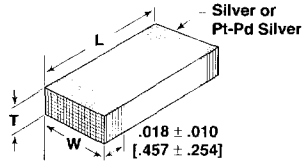
TO DETERMINE THE RESISTANCE of a thermistor at a specified temperature, select the appropriate material letter from the part number and using the column below for that material type, find the RMF at the desired temperature. Multiply that factor times the 25°C resistance of the thermistor.

**MODELS 7 and 8**

**STANDARD ELECTRICAL SPECIFICATIONS and DIMENSIONAL CONFIGURATIONS**

**MODEL 7**

**MODEL 8**



[Numbers in brackets indicate millimeters]

R @ 25°C ± 10% (Ohms)	MODEL	T.C. %/°C	T ± .010 [.254]	W ± .010 [.254]	L ± .010 [.254]
1,000,000	7M105-J	-4.79	.014 [.356]	.054 [1.37]	.102 [2.59]
500,000	7U504-J	-4.30	.029 [.734]	.053 [1.35]	.102 [2.59]
100,000	7J104-J	-4.40	.016 [.406]	.043 [1.09]	.107 [2.72]
80,000	7J803-J	-4.40	.015 [.381]	.053 [1.35]	.102 [2.59]
60,000	7J603-J	-4.40	.019 [.483]	.053 [1.35]	.102 [2.59]
50,000	7J503-J	-4.40	.024 [.610]	.051 [1.30]	.102 [2.59]
40,000	7J403-J	-4.40	.028 [.711]	.053 [1.35]	.102 [2.59]
30,000	7J303-J	-4.40	.032 [.813]	.060 [1.52]	.102 [2.59]
15,000	7D153-J	-3.83	.016 [.406]	.043 [1.09]	.102 [2.59]
10,000	7D103-J	-3.83	.020 [.508]	.051 [1.30]	.102 [2.59]
8,000	7D802-J	-3.83	.024 [.610]	.052 [1.32]	.102 [2.59]
7,000	7D702-J	-3.83	.025 [.635]	.056 [1.42]	.102 [2.59]
6,000	7D602-J	-3.83	.029 [.737]	.056 [1.42]	.102 [2.59]
5,000	7D502-J	-3.83	.033 [.838]	.058 [1.47]	.102 [2.59]
5,000	7D502-1206-J	-3.83	.042 [1.07]	.063 [1.60]	.126 [3.20]
6,000	7D602-1206-J	-3.83	.035 [.889]	.063 [1.60]	.126 [3.20]
7,000	7D702-1206-J	-3.83	.030 [.762]	.063 [1.60]	.126 [3.20]
8,000	7D802-1206-J	-3.83	.027 [.686]	.063 [1.60]	.126 [3.20]
10,000	7D103-1206-J	-3.83	.022 [.559]	.063 [1.60]	.126 [3.20]
4,000	7D402-1208-J	-3.83	.041 [1.04]	.079 [2.01]	.126 [3.20]
3,000	7D302-1210-J	-3.83	.044 [1.12]	.098 [2.49]	.126 [3.20]
10,000	7J103-1012-N	-4.40	.065 [1.65]	.126 [3.20]	.098 [2.49]
100,000	7J104-1205-N	-4.40	.026 [.660]	.049 [1.24]	.126 [3.20]
50,000	7J503-1206-N	-4.40	.039 [.991]	.063 [1.60]	.126 [3.20]
10,000	7D103-1206-N	-3.83	.033 [.838]	.063 [1.60]	.126 [3.20]
1,000,000	8X105-H	-5.20	.020 [.508]	.043 [1.09]	.043 [1.09]
500,000	8X504-H	-5.20	.016 [.406]	.053 [1.35]	.053 [1.35]
250,000	8X254-H	-5.20	.016 [.406]	.075 [1.91]	.075 [1.91]
200,000	8M204-H	-4.79	.035 [.889]	.041 [1.04]	.041 [1.04]
100,000	8X104-H	-5.20	.016 [.406]	.120 [3.05]	.120 [3.05]
100,000	8U104-H	-4.30	.024 [.610]	.049 [1.24]	.049 [1.24]
100,000	8M104-H	-4.79	.032 [.813]	.054 [1.37]	.054 [1.37]
80,000	8U803-H	-4.30	.020 [.508]	.049 [1.24]	.049 [1.24]
50,000	8U503-H	-4.30	.015 [.381]	.053 [1.35]	.053 [1.35]
50,000	8M503-H	-4.79	.015 [.381]	.051 [1.30]	.051 [1.30]
30,000	8U303-H	-4.30	.013 [.330]	.054 [1.37]	.072 [1.83]
30,000	8M303-H	-4.79	.013 [.330]	.066 [1.68]	.066 [1.68]
30,000	8J303-H	-4.40	.032 [.813]	.029 [.737]	.029 [.737]
20,000	8J203-H	-4.40	.032 [.813]	.036 [.914]	.036 [.914]
15,000	8J153-H	-4.40	.032 [.813]	.042 [1.07]	.042 [1.07]
10,000	8J103-H	-4.40	.032 [.813]	.051 [1.30]	.051 [1.30]
3,000	8J302-H	-4.40	.015 [.381]	.054 [1.37]	.068 [1.73]
2,000	8J202-H	-4.40	.015 [.381]	.054 [1.37]	.101 [2.57]
2,000	8D202-H	-3.83	.037 [.940]	.049 [1.24]	.049 [1.24]
1,000	8D102-H	-3.83	.022 [.559]	.053 [1.35]	.053 [1.35]
1,000	8J102-H	-4.40	.015 [.381]	.105 [2.67]	.105 [2.67]
500	8D501-H	-3.83	.015 [.381]	.060 [1.52]	.060 [1.52]
500	8J501-H	-4.40	.015 [.381]	.148 [3.76]	.148 [3.76]
300	8D301-H	-3.83	.015 [.381]	.077 [1.96]	.077 [1.96]
50	8D50R0-H	-3.83	.015 [.381]	.188 [4.78]	.188 [4.78]

NOTE: Models with J Conductor also available in H and G Conductor. Gold terminations available as specials. Consult factory.

**HOW TO ORDER**

<p><b>7</b> MODEL</p> <p>7 = Wraparound 8 = Top and Bottom</p>	<p><b>D</b> MATERIAL</p> <p>D = TC - 3.83% J = TC - 4.4% M = TC - 4.79% U = TC - 4.3% X = TC - 5.2%</p>	<p><b>103</b> VALUE</p> <p>First 2 digits are significant. The last digit is number of zeros in value. Example: 10k = 103</p>	<p><b>J</b> CONDUCTOR TYPE</p> <p>H = Silver G = Palladium Silver J = Platinum Palladium Silver N = Nickel Barrier</p>	<p><b>- 5</b> TOLERANCE</p> <p>± 10% = None ± 5% = - 5</p>
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