



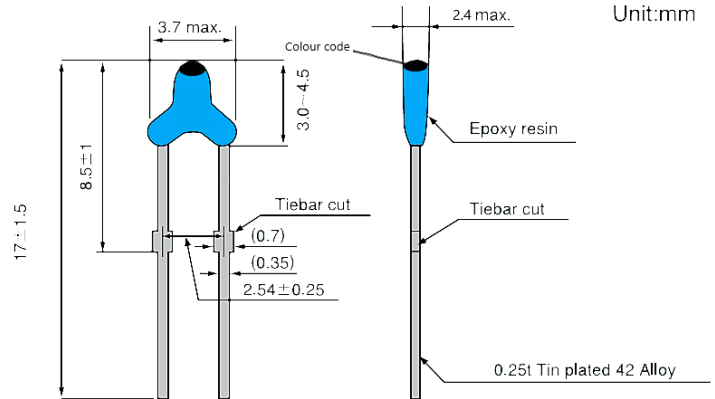
## Semitec AT Series NTC Thermistor

### AT Thermistor

The AT series thermistor features a high accuracy  $\pm 1\%$  tolerance for both resistance and B-value.  
Rigid form-factor aids assembly.  
Excellent long-term reliability

### Applications

- Office automation products
- Temperature Controllers
- Mobile devices
- Battery packs
- Home electronics
- HVAC equipment
- Fire & Digital Security
- Thermometers
- Automotive, e- vehicles
- Vending machines
- Refrigerated display cases



Unit:mm

### Features

- $\pm 1\%$  accuracy or better between  $-5^{\circ}\text{C}$  and  $+80^{\circ}\text{C}$
- Tight R25 and B25/85 tolerances ( $\pm 1\%$ )

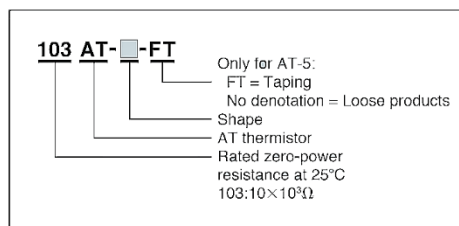
Part No.	R <sub>25</sub> <sup>1</sup>	R <sub>25</sub> Tolerance	B-value <sup>2</sup>	Dissipation factor mW/°C	Thermal time constant <sup>3</sup>	Rated power mW at 25°C	Operating Temperature range °C
102AT-2	1.00kΩ	±1%	3100K±1%	approx. 2	approx. 15	10	-50~+90
202AT-2	2.00kΩ		3182K±1%				
502AT-2	5.00kΩ		3324K±1%				
103AT-2	10.0kΩ		3435K±1%				-50~+110
203AT-2	20.0kΩ		4013K±1%				
503AT-2	50.00kΩ		4060K±1%				
104AT-2	100.0kΩ		4665K±1%				
103AT-5	10.0kΩ		3435K±1%	approx. 2		12.5	

<sup>1</sup> Rated zero-power resistance value at 25°C.

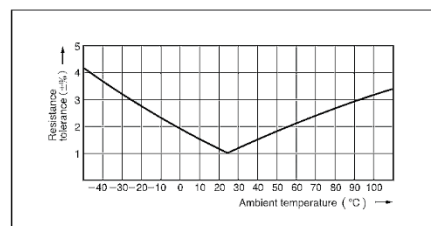
<sup>2</sup> B value determined by rated zero-power resistance at 25°C and 85°C.

<sup>3</sup> Time necessary to reach 63.2% of temperature difference. Measured in still air

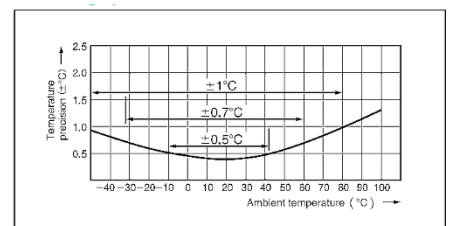
### Part number



### Resistance tolerance



### Interchange precision



### Safety standards

AT-2 type: UL1434, CSA-C22.2, No.0 Authorized

For further information please contact us at [sales@atcsemitec.co.uk](mailto:sales@atcsemitec.co.uk)



## Semitec AT Series NTC Thermistor

### Resistance - Temperature

Temperature (°C)	Type						
	102AT	202AT	502AT	103AT	203AT	503AT	104AT
-50	24.46	55.66	154.6	329.5	1253	3168	11473
-45	18.68	42.17	116.5	247.7	890.5	2257	7781
-40	14.43	32.34	88.91	188.5	642.0	1632	5366
-35	11.23	24.96	68.19	144.1	465.8	1186	3728
-30	8.834	19.48	52.87	111.3	342.5	872.8	2629
-25	6.998	15.29	41.21	86.43	253.6	646.3	1864
-20	5.594	12.11	32.44	67.77	190.0	484.3	1340
-15	4.501	9.655	25.66	53.41	143.2	364.6	969.0
-10	3.651	7.763	20.48	42.47	109.1	277.5	709.5
-5	2.979	6.277	16.43	33.90	83.75	212.3	523.3
0	2.449	5.114	13.29	27.28	64.88	164.0	390.3
5	2.024	4.188	10.80	22.05	50.53	127.5	292.5
10	1.684	3.454	8.840	17.96	39.71	99.99	221.5
15	1.408	2.862	7.267	14.69	31.36	78.77	168.6
20	1.184	2.387	6.013	12.09	24.96	62.56	129.5
25	1.000	2.000	5.000	10.00	20.00	50.00	100.0
30	0.8486	1.684	4.179	8.313	16.12	40.20	77.81

Temperature (°C)	Type						
	102AT	202AT	502AT	103AT	203AT	503AT	104AT
35	0.7229	1.424	3.508	6.940	13.06	32.48	60.94
40	0.6189	1.211	2.961	5.827	10.65	26.43	48.10
45	0.5316	1.033	2.509	4.911	8.716	21.59	38.13
50	0.4587	0.8854	2.137	4.160	7.181	17.75	30.44
55	0.3967	0.7620	1.826	3.536	5.941	14.64	24.42
60	0.3446	0.6587	1.567	3.020	4.943	12.15	19.72
65	0.3000	0.5713	1.350	2.588	4.127	10.13	15.99
70	0.2622	0.4975	1.168	2.228	3.464	8.482	13.05
75	0.2285	0.4343	1.014	1.924	2.916	7.129	10.68
80	0.1999	0.3807	0.8835	1.668	2.468	6.022	8.796
85	0.1751	0.3346	0.7722	1.451	2.096	5.105	7.271
90	0.1536	0.2949	0.6771	1.266	1.788	4.345	6.041
95			0.5961	1.108	1.530	3.712	5.037
100			0.5265	0.9731	1.315	3.185	4.220
105			0.4654	0.8572	1.134	2.741	3.546
110			0.4128	0.7576	0.9807	2.369	2.994

For further information please contact us at [sales@atcsemitec.co.uk](mailto:sales@atcsemitec.co.uk)