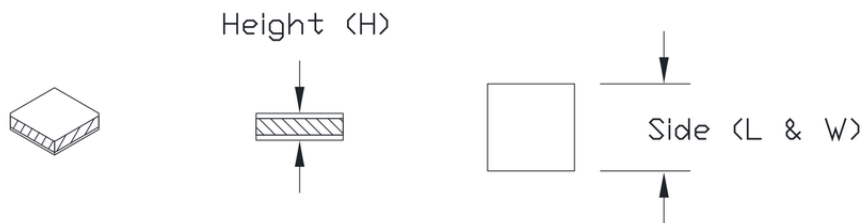




A1 NTC Thermistor

Description:

Leadless chip NTC thermistor with top and bottom silver metalized contacts. Available in a variety of R-T Curve and R25 values. RoHS compliant without exemptions - lead and cadmium free.



Features:

- **Suitable for die mounting with conductive epoxy**
- **Exceptional stability and reliability**
- **RoHS compliant without exemptions**
- **Available in point-matched tolerances from 0° C to 100° C**

The A1 leadless NTC thermistor offers a lower cost option to the gold-terminated A2 series. This configuration is ideal for mounting on hybrid substrates, integrated circuits, or printed circuit boards for temperature compensation or over-temp protection. Contact us at info@northstarsensors.com for assistance with your unique application.

Applications:

- **Automotive**
- **Infrared detectors**
- **Industrial controls**
- **Small package electronics**
- **Tunable lasers and optical filters**
- **Cold junction compensation**

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A1 NTC Thermistor

Typical Configurations:

Part Number	Resistance at 25 °C	Resistance Tolerance	Die Size LxWxH	R/T Curve	25 °C / 85 °C β
A1A103R44P2W	10 k Ω	$\pm 2\%$ at 25 °C	0.017" x 0.017" x 0.005" (0.43 x 0.43 x 0.13 mm)	44	3978
A1B303R43P5W	30 k Ω	$\pm 5\%$ at 25 °C	0.027" x 0.027" x 0.011" (0.69 x 0.69 x 0.28 mm)	43	3943
A1D102R38P5W	1 k Ω	$\pm 5\%$ at 25 °C	0.034" x 0.034" x 0.011" (0.86 x 0.86 x 0.28 mm)	38	3486

A wide variety of configurations are possible. Contact us at info@northstarsensors.com for assistance with your unique application.

Other Specifications:

Recommended Operating Temperature	-50 °C to 100 °C
Recommended Measurement Current	< 50 μ A when mounted
Time Constant	~ 100 ms unmounted in stirred liquid
Dissipation Constant	~ 0.3 mW / °C unmounted in ambient air
RoHS and REACH	Compliant

Resistance vs Temperature Conversion Tables

°C	CURVE 38		CURVE 43		CURVE 44	
	Ω RATIO	NTC	Ω RATIO	NTC	Ω RATIO	NTC
	R_T / R_{25}	(%/°C)	R_T / R_{25}	(%/°C)	R_T / R_{25}	(%/°C)
0	2.815	-4.46	3.1660	-4.94	3.2651	-5.11
5	2.260	-4.33	2.4815	-4.80	2.5393	-4.95
10	1.826	-4.20	1.9583	-4.67	1.9901	-4.80
15	1.485	-4.07	1.5556	-4.54	1.5712	-4.66
20	1.215	-3.95	1.2434	-4.42	1.2493	-4.52
25	1.000	-3.84	1.0000	-4.30	1.0000	-4.39
30	0.8276	-3.73	0.80892	-4.18	0.80567	-4.26
35	0.6885	-3.63	0.65804	-4.07	0.65314	-4.14
40	0.5758	-3.53	0.53820	-3.97	0.53266	-4.02
45	0.4840	-3.43	0.44249	-3.87	0.43689	-3.91
50	0.4087	-3.33	0.36563	-3.77	0.36031	-3.81
55	0.3467	-3.24	0.30357	-3.67	0.29857	-3.71
60	0.2954	-3.16	0.25323	-3.58	0.24869	-3.61
65	0.2528	-3.07	0.21219	-3.49	0.20816	-3.51
70	0.2172	-2.99	0.17858	-3.41	0.17508	-3.42

Please visit
northstarsensors.com/temperature-curves
 for additional tables