

NTC Disc Thermistor with Phenolic Resin Coating

for Automotive, Industrial and General applications

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SpicAT



KYOCERA AVX Disc NTC Thermistors are high quality devices widely used for temperature measurement, compensation, regulation, liquid level or flow detection in wide range of applications, including automotive, industrial and general purpose. Cu Wire/Sn plated, additional wire materials and custom length available upon request. Phenolic resin coating.

Characteristics

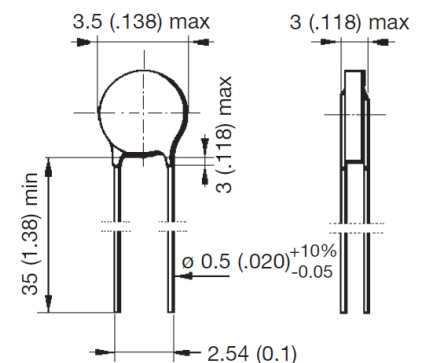
| Head Size | 3 mm |
|--------------------------------|-----------------|
| Operating temperature | -55°C to +150°C |
| Resistance | 1500 Ohm |
| Tolerance on Resistance (25°C) | $\pm 10\%$ |
| B 25/85 | 3630K $\pm 3\%$ |
| Maximum dissipation at 25°C | 0.25 W |
| Thermal dissipation factor | 5 mW/°C |
| Thermal time constant | 10 s |
| Coating | phenolic resin |
| Leads | Cu Wire/100% Sn |









Dimensions

| Disc Diameter | Disc Thickness | Lead Length | Lead Spacing | Lead Diameter |
|---------------|----------------|-------------|--------------|---------------|
| 3.5 max | 3 max | 35 min | 2.54 | 0.5 |
| (0.138) max | (0.118) max | (1.38) min | (0.1) | (0.02) |

mm (inches)



How to Order (Packaging options)

| | | | | | |
|--|--|---|--|---|--|
| ND  Type ND = phenolic resin coating | 03  Size 03 = 3mm disc | K0  Material Code See Datasheet | 0152  Resistance (Ohm) 2 Sig. Digits + Number of Zeros | K  Tolerance H = $\pm 3\%$ J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$ * For selected PNs | CA  Suffix: Packaging -- = Bulk (3000 pcs/bag) CA = Ammpack, H=16mm (3,000 pcs) CB = Tape and reel, H=16mm (3,000 pcs) CC = Ammpack, H=19.5mm (3,000 pcs) CD = Tape and reel, H=19.5mm (3,000 pcs) |
|--|--|---|--|---|--|

Material Table

K0 (B25/85 = 3630K $\pm 3\%$)

| T (°C) | R(T) / R25 | TF (%) | α (%/°C) |
|--------|------------|--------|-----------------|
| -55 | 56.27 | 21.36 | -6.25 |
| -50 | 41.22 | 18.45 | -6.06 |
| -45 | 30.48 | 15.86 | -5.89 |
| -40 | 22.74 | 13.56 | -5.71 |
| -35 | 17.11 | 11.52 | -5.55 |
| -30 | 12.98 | 9.71 | -5.39 |
| -25 | 9.931 | 8.10 | -5.24 |
| -20 | 7.655 | 6.69 | -5.09 |
| -15 | 5.945 | 5.45 | -4.95 |
| -10 | 4.651 | 4.36 | -4.81 |
| -5 | 3.663 | 3.41 | -4.67 |
| 0 | 2.905 | 2.58 | -4.54 |
| 5 | 2.319 | 1.88 | -4.42 |
| 10 | 1.862 | 1.27 | -4.30 |
| 15 | 1.505 | 0.77 | -4.18 |
| 20 | 1.223 | 0.34 | -4.07 |
| 25 | 1.000 | 0.00 | -3.96 |
| 30 | 0.8219 | 0.33 | -3.85 |
| 35 | 0.6792 | 0.71 | -3.75 |
| 40 | 0.5641 | 1.12 | -3.65 |
| 45 | 0.4708 | 1.58 | -3.55 |
| 50 | 0.3949 | 2.07 | -3.46 |
| 55 | 0.3327 | 2.58 | -3.37 |
| 60 | 0.2816 | 3.12 | -3.28 |
| 65 | 0.2393 | 3.69 | -3.20 |
| 70 | 0.2043 | 4.27 | -3.12 |
| 75 | 0.1751 | 4.87 | -3.04 |
| 80 | 0.1506 | 5.49 | -2.96 |
| 85 | 0.1301 | 6.12 | -2.89 |
| 90 | 0.1128 | 6.76 | -2.82 |
| 95 | 0.0981 | 7.41 | -2.75 |
| 100 | 0.0856 | 8.07 | -2.68 |
| 105 | 0.0750 | 8.74 | -2.61 |
| 110 | 0.0659 | 9.42 | -2.55 |
| 115 | 0.0581 | 10.09 | -2.49 |
| 120 | 0.0514 | 10.78 | -2.43 |
| 125 | 0.0455 | 11.46 | -2.37 |
| 130 | 0.0405 | 12.15 | -2.32 |
| 135 | 0.0361 | 12.84 | -2.26 |
| 140 | 0.0323 | 13.53 | -2.21 |
| 145 | 0.0289 | 14.22 | -2.16 |
| 150 | 0.0260 | 14.91 | -2.11 |

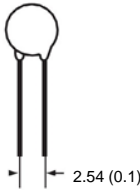
| B25/50 | B25/75 | B25/85 | B25/100 | B Tol |
|--------|--------|--------|---------|-----------|
| 3581 K | 3618 K | 3630 K | 3646 K | $\pm 3\%$ |

| R Min (Ω) | R Nom (Ω) | R Max (Ω) |
|--------------------|--------------------|--------------------|
| 57,938 | 84,403 | 110,869 |
| 44,239 | 61,830 | 79,421 |
| 33,892 | 45,717 | 57,541 |
| 26,070 | 34,107 | 42,143 |
| 20,143 | 25,666 | 31,189 |
| 15,637 | 19,475 | 23,313 |
| 12,200 | 14,897 | 17,594 |
| 9,566 | 11,483 | 13,399 |
| 7,540 | 8,918 | 10,295 |
| 5,974 | 6,976 | 7,977 |
| 4,758 | 5,495 | 6,232 |
| 3,809 | 4,358 | 4,906 |
| 3,065 | 3,478 | 3,891 |
| 2,479 | 2,794 | 3,109 |
| 2,014 | 2,257 | 2,501 |
| 1,645 | 1,835 | 2,025 |
| 1,350 | 1,500 | 1,650 |
| 1,106 | 1,233 | 1,360 |
| 909.7 | 1,019 | 1,128 |
| 752.0 | 846.1 | 940.2 |
| 624.4 | 706.2 | 788.0 |
| 520.8 | 592.3 | 663.7 |
| 436.2 | 499.0 | 561.8 |
| 366.9 | 422.3 | 477.8 |
| 309.9 | 359.0 | 408.1 |
| 262.7 | 306.4 | 350.1 |
| 223.6 | 262.6 | 301.7 |
| 191.0 | 226.0 | 261.0 |
| 163.7 | 195.2 | 226.6 |
| 140.8 | 169.2 | 197.5 |
| 121.5 | 147.2 | 172.8 |
| 105.2 | 128.5 | 151.7 |
| 91.43 | 112.5 | 133.6 |
| 79.67 | 98.86 | 118.1 |
| 69.63 | 87.14 | 104.7 |
| 61.03 | 77.04 | 93.05 |
| 53.65 | 68.31 | 82.97 |
| 47.29 | 60.74 | 74.20 |
| 41.79 | 54.16 | 66.53 |
| 37.03 | 48.42 | 59.81 |
| 32.89 | 43.40 | 53.91 |
| 29.28 | 39.00 | 48.71 |

Packaging Specification

Bulk

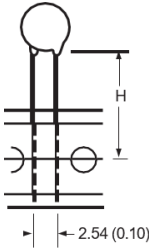
| Suffix | Qty |
|--------|----------|
| -- | 3000 pcs |



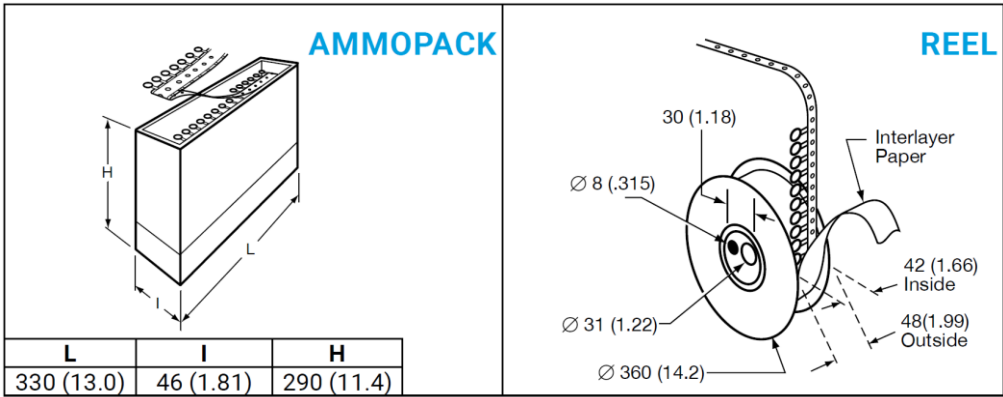
Reel and Ammopack

Tables below indicate the suffixes to specify when ordering to get the required packaging. For devices on tape, it is necessary to specify the height (H) which is the distance between the tape axis (sprocket holes axis) and the seating plane on the printed circuit board. The following types can be ordered on tape either in AMMOPACK (fan folder) or on REEL in accordance with IEC 286-2.

| Suffix | H | Leads | Qty | Packaging |
|--------|------------------------|----------|----------|-----------|
| CA | 16±0.5 (0.630±0.020) | Straight | 3000 pcs | Ammopack |
| CB | 16±0.5 (0.630±0.020) | Straight | 3000 pcs | Reel |
| CC | 19.5±0.5 (0.768±0.020) | Straight | 3000 pcs | Ammopack |
| CD | 19.5±0.5 (0.768±0.020) | Straight | 3000 pcs | Reel |



DIMENSIONS: millimeters (inches)



NOTICE: Specifications are subject to change without notice. All statements, information and data given herein are believed to be accurate and reliable, but are presented without guarantee or responsibility of any kind, expressed or implied. Specifications are typical and may not apply to all applications.