# NTC THERMISTOR R-T CHARACTERISTICS

| TYPE | TH05-4B333F[R,B] |
|---|---|

| | | | |
|---|---|---|---|
| RESISTANCE(at25℃) | 33000 Ω | R-TOLERANCE(±) | 1 % |
| B-VALUE(25/50℃) | 4050 K | B-TOLERANCE(±) | 1 % |

| T(℃) | Rmin(Ω) | Rnom(Ω) | Rmax(Ω) |
|---|---|---|---|
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| | | | |
| -40 | 1.275E+06 | 1.337E+06 | 1.403E+06 |
| -39 | 1.192E+06 | 1.249E+06 | 1.309E+06 |
| -38 | 1.114E+06 | 1.167E+06 | 1.222E+06 |
| -37 | 1.042E+06 | 1.091E+06 | 1.142E+06 |
| -36 | 9.747E+05 | 1.020E+06 | 1.066E+06 |
| -35 | 9.122E+05 | 9.535E+05 | 9.965E+05 |
| -34 | 8.539E+05 | 8.919E+05 | 9.315E+05 |
| -33 | 7.996E+05 | 8.346E+05 | 8.711E+05 |
| -32 | 7.490E+05 | 7.812E+05 | 8.148E+05 |
| -31 | 7.018E+05 | 7.315E+05 | 7.624E+05 |
| -30 | 6.578E+05 | 6.852E+05 | 7.136E+05 |
| -29 | 6.167E+05 | 6.419E+05 | 6.681E+05 |
| -28 | 5.784E+05 | 6.016E+05 | 6.257E+05 |
| -27 | 5.426E+05 | 5.640E+05 | 5.863E+05 |
| -26 | 5.092E+05 | 5.290E+05 | 5.495E+05 |
| -25 | 4.781E+05 | 4.963E+05 | 5.152E+05 |
| -24 | 4.490E+05 | 4.658E+05 | 4.832E+05 |
| -23 | 4.219E+05 | 4.374E+05 | 4.534E+05 |
| -22 | 3.965E+05 | 4.108E+05 | 4.256E+05 |
| -21 | 3.728E+05 | 3.860E+05 | 3.996E+05 |
| -20 | 3.506E+05 | 3.628E+05 | 3.754E+05 |
| -19 | 3.298E+05 | 3.411E+05 | 3.527E+05 |
| -18 | 3.104E+05 | 3.208E+05 | 3.315E+05 |
| -17 | 2.922E+05 | 3.018E+05 | 3.117E+05 |
| -16 | 2.752E+05 | 2.841E+05 | 2.932E+05 |
| -15 | 2.593E+05 | 2.675E+05 | 2.759E+05 |
| -14 | 2.444E+05 | 2.520E+05 | 2.598E+05 |
| -13 | 2.305E+05 | 2.375E+05 | 2.447E+05 |
| -12 | 2.175E+05 | 2.239E+05 | 2.306E+05 |
| -11 | 2.052E+05 | 2.112E+05 | 2.173E+05 |
| -10 | 1.938E+05 | 1.993E+05 | 2.049E+05 |
| -9 | 1.830E+05 | 1.881E+05 | 1.933E+05 |
| -8 | 1.729E+05 | 1.776E+05 | 1.824E+05 |
| -7 | 1.634E+05 | 1.678E+05 | 1.722E+05 |
| -6 | 1.545E+05 | 1.585E+05 | 1.627E+05 |
| -5 | 1.462E+05 | 1.499E+05 | 1.537E+05 |
| -4 | 1.383E+05 | 1.418E+05 | 1.453E+05 |
| -3 | 1.310E+05 | 1.341E+05 | 1.374E+05 |
| -2 | 1.240E+05 | 1.270E+05 | 1.300E+05 |
| -1 | 1.175E+05 | 1.202E+05 | 1.230E+05 |
| 0 | 1.114E+05 | 1.139E+05 | 1.165E+05 |

| T(℃) | Rmin(Ω) | Rnom(Ω) | Rmax(Ω) |
|---|---|---|---|
| 0 | 1.114E+05 | 1.139E+05 | 1.165E+05 |
| 1 | 1.056E+05 | 1.080E+05 | 1.103E+05 |
| 2 | 1.002E+05 | 1.024E+05 | 1.046E+05 |
| 3 | 9.508E+04 | 9.709E+04 | 9.912E+04 |
| 4 | 9.026E+04 | 9.211E+04 | 9.400E+04 |
| 5 | 8.571E+04 | 8.743E+04 | 8.917E+04 |
| 6 | 8.142E+04 | 8.301E+04 | 8.461E+04 |
| 7 | 7.737E+04 | 7.884E+04 | 8.032E+04 |
| 8 | 7.355E+04 | 7.490E+04 | 7.628E+04 |
| 9 | 6.994E+04 | 7.119E+04 | 7.246E+04 |
| 10 | 6.653E+04 | 6.769E+04 | 6.886E+04 |
| 11 | 6.330E+04 | 6.437E+04 | 6.545E+04 |
| 12 | 6.026E+04 | 6.124E+04 | 6.224E+04 |
| 13 | 5.738E+04 | 5.829E+04 | 5.921E+04 |
| 14 | 5.465E+04 | 5.549E+04 | 5.634E+04 |
| 15 | 5.207E+04 | 5.285E+04 | 5.363E+04 |
| 16 | 4.963E+04 | 5.034E+04 | 5.106E+04 |
| 17 | 4.732E+04 | 4.797E+04 | 4.864E+04 |
| 18 | 4.513E+04 | 4.573E+04 | 4.634E+04 |
| 19 | 4.305E+04 | 4.361E+04 | 4.417E+04 |
| 20 | 4.109E+04 | 4.160E+04 | 4.211E+04 |
| 21 | 3.922E+04 | 3.969E+04 | 4.016E+04 |
| 22 | 3.745E+04 | 3.788E+04 | 3.831E+04 |
| 23 | 3.577E+04 | 3.617E+04 | 3.656E+04 |
| 24 | 3.418E+04 | 3.454E+04 | 3.490E+04 |
| 25 | 3.267E+04 | 3.300E+04 | 3.333E+04 |
| 26 | 3.121E+04 | 3.154E+04 | 3.187E+04 |
| 27 | 2.982E+04 | 3.015E+04 | 3.047E+04 |
| 28 | 2.850E+04 | 2.882E+04 | 2.915E+04 |
| 29 | 2.725E+04 | 2.757E+04 | 2.790E+04 |
| 30 | 2.606E+04 | 2.638E+04 | 2.670E+04 |
| 31 | 2.492E+04 | 2.524E+04 | 2.557E+04 |
| 32 | 2.385E+04 | 2.417E+04 | 2.448E+04 |
| 33 | 2.283E+04 | 2.314E+04 | 2.346E+04 |
| 34 | 2.186E+04 | 2.217E+04 | 2.248E+04 |
| 35 | 2.093E+04 | 2.124E+04 | 2.154E+04 |
| 36 | 2.005E+04 | 2.035E+04 | 2.066E+04 |
| 37 | 1.921E+04 | 1.951E+04 | 1.981E+04 |
| 38 | 1.842E+04 | 1.871E+04 | 1.900E+04 |
| 39 | 1.766E+04 | 1.794E+04 | 1.823E+04 |
| 40 | 1.693E+04 | 1.722E+04 | 1.750E+04 |
| 41 | 1.624E+04 | 1.652E+04 | 1.680E+04 |
| 42 | 1.559E+04 | 1.586E+04 | 1.614E+04 |
| 43 | 1.496E+04 | 1.523E+04 | 1.550E+04 |
| 44 | 1.436E+04 | 1.462E+04 | 1.489E+04 |
| 45 | 1.379E+04 | 1.405E+04 | 1.431E+04 |
| 46 | 1.325E+04 | 1.350E+04 | 1.376E+04 |
| 47 | 1.273E+04 | 1.297E+04 | 1.323E+04 |
| 48 | 1.223E+04 | 1.247E+04 | 1.272E+04 |
| 49 | 1.176E+04 | 1.200E+04 | 1.224E+04 |
| 50 | 1.130E+04 | 1.154E+04 | 1.178E+04 |

# NTC THERMISTOR R-T CHARACTERISTICS

| TYPE | TH05-4B333F[R,B] |
|---|---|

| | | | | | |
|---|---|---|---|---|---|
| RESISTANCE(at25℃) | 33000 | Ω | R-TOLERANCE(±) | 1 | % |
| B-VALUE(25/50℃) | 4050 | K | B-TOLERANCE(±) | 1 | % |

| T(℃) | Rmin(Ω) | Rnom(Ω) | Rmax(Ω) |
|---|---|---|---|
| 50 | 1.130E+04 | 1.154E+04 | 1.178E+04 |
| 51 | 1.087E+04 | 1.110E+04 | 1.133E+04 |
| 52 | 1.046E+04 | 1.068E+04 | 1.091E+04 |
| 53 | 1.006E+04 | 1.028E+04 | 1.051E+04 |
| 54 | 9.686E+03 | 9.902E+03 | 1.012E+04 |
| 55 | 9.325E+03 | 9.536E+03 | 9.752E+03 |
| 56 | 8.979E+03 | 9.186E+03 | 9.398E+03 |
| 57 | 8.648E+03 | 8.851E+03 | 9.058E+03 |
| 58 | 8.332E+03 | 8.531E+03 | 8.733E+03 |
| 59 | 8.029E+03 | 8.223E+03 | 8.422E+03 |
| 60 | 7.738E+03 | 7.929E+03 | 8.123E+03 |
| 61 | 7.460E+03 | 7.646E+03 | 7.837E+03 |
| 62 | 7.193E+03 | 7.376E+03 | 7.562E+03 |
| 63 | 6.938E+03 | 7.116E+03 | 7.299E+03 |
| 64 | 6.693E+03 | 6.867E+03 | 7.046E+03 |
| 65 | 6.458E+03 | 6.629E+03 | 6.803E+03 |
| 66 | 6.233E+03 | 6.400E+03 | 6.571E+03 |
| 67 | 6.016E+03 | 6.180E+03 | 6.347E+03 |
| 68 | 5.809E+03 | 5.969E+03 | 6.133E+03 |
| 69 | 5.610E+03 | 5.767E+03 | 5.927E+03 |
| 70 | 5.419E+03 | 5.572E+03 | 5.729E+03 |
| 71 | 5.236E+03 | 5.386E+03 | 5.539E+03 |
| 72 | 5.060E+03 | 5.207E+03 | 5.357E+03 |
| 73 | 4.891E+03 | 5.034E+03 | 5.181E+03 |
| 74 | 4.728E+03 | 4.869E+03 | 5.013E+03 |
| 75 | 4.572E+03 | 4.709E+03 | 4.850E+03 |
| 76 | 4.422E+03 | 4.556E+03 | 4.694E+03 |
| 77 | 4.278E+03 | 4.409E+03 | 4.544E+03 |
| 78 | 4.139E+03 | 4.267E+03 | 4.399E+03 |
| 79 | 4.005E+03 | 4.131E+03 | 4.260E+03 |
| 80 | 3.877E+03 | 4.000E+03 | 4.126E+03 |
| 81 | 3.753E+03 | 3.873E+03 | 3.997E+03 |
| 82 | 3.634E+03 | 3.751E+03 | 3.872E+03 |
| 83 | 3.519E+03 | 3.634E+03 | 3.752E+03 |
| 84 | 3.408E+03 | 3.521E+03 | 3.637E+03 |
| 85 | 3.302E+03 | 3.412E+03 | 3.525E+03 |
| 86 | 3.199E+03 | 3.307E+03 | 3.418E+03 |
| 87 | 3.101E+03 | 3.206E+03 | 3.315E+03 |
| 88 | 3.005E+03 | 3.109E+03 | 3.215E+03 |
| 89 | 2.914E+03 | 3.015E+03 | 3.119E+03 |
| 90 | 2.825E+03 | 2.924E+03 | 3.026E+03 |
| 91 | 2.740E+03 | 2.837E+03 | 2.936E+03 |
| 92 | 2.658E+03 | 2.752E+03 | 2.850E+03 |
| 93 | 2.578E+03 | 2.671E+03 | 2.766E+03 |
| 94 | 2.502E+03 | 2.592E+03 | 2.686E+03 |
| 95 | 2.428E+03 | 2.516E+03 | 2.608E+03 |
| 96 | 2.357E+03 | 2.443E+03 | 2.533E+03 |
| 97 | 2.288E+03 | 2.373E+03 | 2.461E+03 |
| 98 | 2.221E+03 | 2.305E+03 | 2.391E+03 |
| 99 | 2.157E+03 | 2.239E+03 | 2.323E+03 |
| 100 | 2.095E+03 | 2.175E+03 | 2.258E+03 |

| T(℃) | Rmin(Ω) | Rnom(Ω) | Rmax(Ω) |
|---|---|---|---|
| 100 | 2.095E+03 | 2.175E+03 | 2.258E+03 |
| 101 | 2.036E+03 | 2.114E+03 | 2.195E+03 |
| 102 | 1.978E+03 | 2.054E+03 | 2.134E+03 |
| 103 | 1.922E+03 | 1.997E+03 | 2.075E+03 |
| 104 | 1.868E+03 | 1.942E+03 | 2.018E+03 |
| 105 | 1.816E+03 | 1.888E+03 | 1.963E+03 |
| 106 | 1.766E+03 | 1.836E+03 | 1.909E+03 |
| 107 | 1.717E+03 | 1.786E+03 | 1.858E+03 |
| 108 | 1.670E+03 | 1.738E+03 | 1.808E+03 |
| 109 | 1.625E+03 | 1.691E+03 | 1.759E+03 |
| 110 | 1.580E+03 | 1.645E+03 | 1.713E+03 |
| 111 | 1.538E+03 | 1.601E+03 | 1.667E+03 |
| 112 | 1.496E+03 | 1.559E+03 | 1.623E+03 |
| 113 | 1.456E+03 | 1.517E+03 | 1.581E+03 |
| 114 | 1.418E+03 | 1.477E+03 | 1.539E+03 |
| 115 | 1.380E+03 | 1.439E+03 | 1.500E+03 |
| 116 | 1.344E+03 | 1.401E+03 | 1.461E+03 |
| 117 | 1.309E+03 | 1.365E+03 | 1.424E+03 |
| 118 | 1.275E+03 | 1.330E+03 | 1.387E+03 |
| 119 | 1.242E+03 | 1.296E+03 | 1.352E+03 |
| 120 | 1.210E+03 | 1.263E+03 | 1.318E+03 |
| 121 | 1.179E+03 | 1.231E+03 | 1.285E+03 |
| 122 | 1.149E+03 | 1.200E+03 | 1.253E+03 |
| 123 | 1.120E+03 | 1.170E+03 | 1.223E+03 |
| 124 | 1.092E+03 | 1.141E+03 | 1.193E+03 |
| 125 | 1.065E+03 | 1.113E+03 | 1.163E+03 |