# NTC THERMISTOR R-T CHARACTERISTICS

| TYPE | TN05-3H103J [R,B] |
|---|---|

| | | | |
|---|---|---|---|
| RESISTANCE(at25℃) | 10000 Ω | R-TOLERANCE(±) | 5 % |
| B-VALUE(25/50℃) | 3370 K | B-TOLERANCE(±) | 3 % |

| T(℃) | Rmin(Ω) | Rnom(Ω) | Rmax(Ω) |
|---|---|---|---|
| -40 | 1.497E+005 | 1.732E+005 | 1.999E+005 |
| -39 | 1.422E+005 | 1.642E+005 | 1.891E+005 |
| -38 | 1.351E+005 | 1.557E+005 | 1.790E+005 |
| -37 | 1.284E+005 | 1.477E+005 | 1.696E+005 |
| -36 | 1.221E+005 | 1.402E+005 | 1.607E+005 |
| -35 | 1.162E+005 | 1.332E+005 | 1.523E+005 |
| -34 | 1.106E+005 | 1.266E+005 | 1.445E+005 |
| -33 | 1.053E+005 | 1.204E+005 | 1.372E+005 |
| -32 | 1.004E+005 | 1.145E+005 | 1.302E+005 |
| -31 | 9.568E+004 | 1.089E+005 | 1.237E+005 |
| -30 | 9.125E+004 | 1.037E+005 | 1.176E+005 |
| -29 | 8.708E+004 | 9.880E+004 | 1.118E+005 |
| -28 | 8.313E+004 | 9.416E+004 | 1.064E+005 |
| -27 | 7.938E+004 | 8.977E+004 | 1.013E+005 |
| -26 | 7.583E+004 | 8.560E+004 | 9.640E+004 |
| -25 | 7.245E+004 | 8.166E+004 | 9.181E+004 |
| -24 | 6.925E+004 | 7.792E+004 | 8.746E+004 |
| -23 | 6.621E+004 | 7.438E+004 | 8.334E+004 |
| -22 | 6.331E+004 | 7.101E+004 | 7.945E+004 |
| -21 | 6.056E+004 | 6.782E+004 | 7.575E+004 |
| -20 | 5.795E+004 | 6.479E+004 | 7.225E+004 |
| -19 | 5.548E+004 | 6.193E+004 | 6.896E+004 |
| -18 | 5.312E+004 | 5.921E+004 | 6.583E+004 |
| -17 | 5.088E+004 | 5.662E+004 | 6.285E+004 |
| -16 | 4.873E+004 | 5.415E+004 | 6.001E+004 |
| -15 | 4.668E+004 | 5.179E+004 | 5.732E+004 |
| -14 | 4.473E+004 | 4.955E+004 | 5.475E+004 |
| -13 | 4.286E+004 | 4.741E+004 | 5.231E+004 |
| -12 | 4.108E+004 | 4.537E+004 | 4.998E+004 |
| -11 | 3.938E+004 | 4.343E+004 | 4.777E+004 |
| -10 | 3.775E+004 | 4.157E+004 | 4.566E+004 |
| -9 | 3.621E+004 | 3.981E+004 | 4.367E+004 |
| -8 | 3.473E+004 | 3.813E+004 | 4.177E+004 |
| -7 | 3.332E+004 | 3.653E+004 | 3.995E+004 |
| -6 | 3.196E+004 | 3.499E+004 | 3.822E+004 |
| -5 | 3.067E+004 | 3.353E+004 | 3.656E+004 |
| -4 | 2.942E+004 | 3.213E+004 | 3.499E+004 |
| -3 | 2.824E+004 | 3.079E+004 | 3.348E+004 |
| -2 | 2.710E+004 | 2.950E+004 | 3.204E+004 |
| -1 | 2.601E+004 | 2.828E+004 | 3.067E+004 |
| 0 | 2.497E+004 | 2.711E+004 | 2.936E+004 |

| T(℃) | Rmin(Ω) | Rnom(Ω) | Rmax(Ω) |
|---|---|---|---|
| 0 | 2.497E+004 | 2.711E+004 | 2.936E+004 |
| 1 | 2.397E+004 | 2.599E+004 | 2.811E+004 |
| 2 | 2.301E+004 | 2.492E+004 | 2.692E+004 |
| 3 | 2.210E+004 | 2.390E+004 | 2.578E+004 |
| 4 | 2.122E+004 | 2.292E+004 | 2.469E+004 |
| 5 | 2.039E+004 | 2.199E+004 | 2.366E+004 |
| 6 | 1.959E+004 | 2.110E+004 | 2.267E+004 |
| 7 | 1.882E+004 | 2.025E+004 | 2.173E+004 |
| 8 | 1.809E+004 | 1.944E+004 | 2.083E+004 |
| 9 | 1.739E+004 | 1.866E+004 | 1.998E+004 |
| 10 | 1.672E+004 | 1.792E+004 | 1.916E+004 |
| 11 | 1.608E+004 | 1.722E+004 | 1.838E+004 |
| 12 | 1.547E+004 | 1.654E+004 | 1.764E+004 |
| 13 | 1.488E+004 | 1.589E+004 | 1.693E+004 |
| 14 | 1.432E+004 | 1.527E+004 | 1.625E+004 |
| 15 | 1.379E+004 | 1.468E+004 | 1.560E+004 |
| 16 | 1.327E+004 | 1.412E+004 | 1.498E+004 |
| 17 | 1.278E+004 | 1.358E+004 | 1.439E+004 |
| 18 | 1.230E+004 | 1.306E+004 | 1.382E+004 |
| 19 | 1.185E+004 | 1.256E+004 | 1.328E+004 |
| 20 | 1.142E+004 | 1.209E+004 | 1.277E+004 |
| 21 | 1.100E+004 | 1.163E+004 | 1.227E+004 |
| 22 | 1.060E+004 | 1.120E+004 | 1.180E+004 |
| 23 | 1.022E+004 | 1.078E+004 | 1.135E+004 |
| 24 | 9.852E+003 | 1.038E+004 | 1.091E+004 |
| 25 | 9.500E+003 | 1.000E+004 | 1.050E+004 |
| 26 | 9.142E+003 | 9.634E+003 | 1.013E+004 |
| 27 | 8.798E+003 | 9.283E+003 | 9.769E+003 |
| 28 | 8.470E+003 | 8.946E+003 | 9.425E+003 |
| 29 | 8.155E+003 | 8.623E+003 | 9.095E+003 |
| 30 | 7.854E+003 | 8.314E+003 | 8.779E+003 |
| 31 | 7.566E+003 | 8.017E+003 | 8.475E+003 |
| 32 | 7.289E+003 | 7.733E+003 | 8.183E+003 |
| 33 | 7.024E+003 | 7.460E+003 | 7.902E+003 |
| 34 | 6.770E+003 | 7.198E+003 | 7.633E+003 |
| 35 | 6.527E+003 | 6.946E+003 | 7.374E+003 |
| 36 | 6.294E+003 | 6.705E+003 | 7.126E+003 |
| 37 | 6.070E+003 | 6.474E+003 | 6.887E+003 |
| 38 | 5.855E+003 | 6.251E+003 | 6.657E+003 |
| 39 | 5.649E+003 | 6.038E+003 | 6.437E+003 |
| 40 | 5.451E+003 | 5.832E+003 | 6.224E+003 |

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| TYPE | TN05-3H103J [R,B] |
|---|---|

| | | | |
|---|---|---|---|
| RESISTANCE(at25℃) | 10000 Ω | R-TOLERANCE(±) | 5 % |
| B-VALUE(25/50℃) | 3370 K | B-TOLERANCE(±) | 3 % |

| T(℃) | Rmin(Ω) | Rnom(Ω) | Rmax(Ω) |
|---|---|---|---|
| 40 | 5.451E+003 | 5.832E+003 | 6.224E+003 |
| 41 | 5.262E+003 | 5.635E+003 | 6.020E+003 |
| 42 | 5.080E+003 | 5.446E+003 | 5.824E+003 |
| 43 | 4.905E+003 | 5.264E+003 | 5.635E+003 |
| 44 | 4.737E+003 | 5.089E+003 | 5.453E+003 |
| 45 | 4.576E+003 | 4.921E+003 | 5.278E+003 |
| 46 | 4.421E+003 | 4.759E+003 | 5.110E+003 |
| 47 | 4.273E+003 | 4.603E+003 | 4.948E+003 |
| 48 | 4.130E+003 | 4.454E+003 | 4.791E+003 |
| 49 | 3.992E+003 | 4.310E+003 | 4.641E+003 |
| 50 | 3.860E+003 | 4.171E+003 | 4.496E+003 |
| 51 | 3.733E+003 | 4.037E+003 | 4.356E+003 |
| 52 | 3.610E+003 | 3.909E+003 | 4.222E+003 |
| 53 | 3.493E+003 | 3.785E+003 | 4.092E+003 |
| 54 | 3.380E+003 | 3.666E+003 | 3.967E+003 |
| 55 | 3.271E+003 | 3.551E+003 | 3.846E+003 |
| 56 | 3.166E+003 | 3.440E+003 | 3.730E+003 |
| 57 | 3.065E+003 | 3.334E+003 | 3.617E+003 |
| 58 | 2.967E+003 | 3.231E+003 | 3.509E+003 |
| 59 | 2.874E+003 | 3.132E+003 | 3.404E+003 |
| 60 | 2.783E+003 | 3.036E+003 | 3.303E+003 |
| 61 | 2.696E+003 | 2.944E+003 | 3.206E+003 |
| 62 | 2.612E+003 | 2.855E+003 | 3.112E+003 |
| 63 | 2.531E+003 | 2.769E+003 | 3.021E+003 |
| 64 | 2.453E+003 | 2.686E+003 | 2.933E+003 |
| 65 | 2.378E+003 | 2.606E+003 | 2.848E+003 |
| 66 | 2.306E+003 | 2.529E+003 | 2.766E+003 |
| 67 | 2.236E+003 | 2.454E+003 | 2.687E+003 |
| 68 | 2.168E+003 | 2.382E+003 | 2.610E+003 |
| 69 | 2.103E+003 | 2.313E+003 | 2.536E+003 |
| 70 | 2.040E+003 | 2.245E+003 | 2.465E+003 |
| 71 | 1.980E+003 | 2.181E+003 | 2.396E+003 |
| 72 | 1.921E+003 | 2.118E+003 | 2.329E+003 |
| 73 | 1.865E+003 | 2.057E+003 | 2.264E+003 |
| 74 | 1.810E+003 | 1.999E+003 | 2.201E+003 |
| 75 | 1.757E+003 | 1.942E+003 | 2.141E+003 |
| 76 | 1.706E+003 | 1.887E+003 | 2.082E+003 |
| 77 | 1.657E+003 | 1.834E+003 | 2.026E+003 |
| 78 | 1.610E+003 | 1.783E+003 | 1.971E+003 |
| 79 | 1.564E+003 | 1.734E+003 | 1.918E+003 |
| 80 | 1.519E+003 | 1.686E+003 | 1.866E+003 |

| T(℃) | Rmin(Ω) | Rnom(Ω) | Rmax(Ω) |
|---|---|---|---|
| 80 | 1.519E+003 | 1.686E+003 | 1.866E+003 |
| 81 | 1.476E+003 | 1.640E+003 | 1.817E+003 |
| 82 | 1.435E+003 | 1.595E+003 | 1.769E+003 |
| 83 | 1.395E+003 | 1.552E+003 | 1.722E+003 |
| 84 | 1.356E+003 | 1.510E+003 | 1.677E+003 |
| 85 | 1.319E+003 | 1.469E+003 | 1.633E+003 |
| 86 | 1.282E+003 | 1.430E+003 | 1.591E+003 |
| 87 | 1.247E+003 | 1.392E+003 | 1.549E+003 |
| 88 | 1.213E+003 | 1.355E+003 | 1.510E+003 |
| 89 | 1.181E+003 | 1.319E+003 | 1.471E+003 |
| 90 | 1.149E+003 | 1.285E+003 | 1.434E+003 |
| 91 | 1.118E+003 | 1.251E+003 | 1.397E+003 |
| 92 | 1.088E+003 | 1.219E+003 | 1.362E+003 |
| 93 | 1.059E+003 | 1.187E+003 | 1.328E+003 |
| 94 | 1.031E+003 | 1.157E+003 | 1.295E+003 |
| 95 | 1.004E+003 | 1.127E+003 | 1.263E+003 |
| 96 | 9.778E+002 | 1.099E+003 | 1.231E+003 |
| 97 | 9.524E+002 | 1.071E+003 | 1.201E+003 |
| 98 | 9.277E+002 | 1.044E+003 | 1.172E+003 |
| 99 | 9.038E+002 | 1.018E+003 | 1.143E+003 |
| 100 | 8.806E+002 | 9.924E+002 | 1.115E+003 |
| 101 | 8.582E+002 | 9.678E+002 | 1.089E+003 |
| 102 | 8.364E+002 | 9.439E+002 | 1.062E+003 |
| 103 | 8.153E+002 | 9.207E+002 | 1.037E+003 |
| 104 | 7.948E+002 | 8.982E+002 | 1.013E+003 |
| 105 | 7.749E+002 | 8.763E+002 | 9.886E+002 |
| 106 | 7.556E+002 | 8.551E+002 | 9.653E+002 |
| 107 | 7.369E+002 | 8.345E+002 | 9.427E+002 |
| 108 | 7.187E+002 | 8.145E+002 | 9.208E+002 |
| 109 | 7.011E+002 | 7.951E+002 | 8.995E+002 |
| 110 | 6.840E+002 | 7.762E+002 | 8.787E+002 |
| 111 | 6.674E+002 | 7.579E+002 | 8.586E+002 |
| 112 | 6.512E+002 | 7.401E+002 | 8.390E+002 |
| 113 | 6.356E+002 | 7.228E+002 | 8.199E+002 |
| 114 | 6.204E+002 | 7.060E+002 | 8.014E+002 |
| 115 | 6.056E+002 | 6.896E+002 | 7.833E+002 |
| 116 | 5.913E+002 | 6.737E+002 | 7.658E+002 |
| 117 | 5.773E+002 | 6.583E+002 | 7.487E+002 |
| 118 | 5.638E+002 | 6.433E+002 | 7.321E+002 |
| 119 | 5.506E+002 | 6.287E+002 | 7.160E+002 |
| 120 | 5.378E+002 | 6.145E+002 | 7.003E+002 |
| 121 | 5.254E+002 | 6.006E+002 | 6.850E+002 |
| 122 | 5.133E+002 | 5.872E+002 | 6.701E+002 |
| 123 | 5.015E+002 | 5.741E+002 | 6.556E+002 |
| 124 | 4.901E+002 | 5.614E+002 | 6.415E+002 |
| 125 | 4.790E+002 | 5.490E+002 | 6.277E+002 |