# NTC THERMISTOR R-T CHARACTERISTICS

| TYPE | TH11-3K683F[T,B] |
|---|---|

| | | | |
|---|---|---|---|
| RESISTANCE(at25℃) | 68000 Ω | R-TOLERANCE(±) | 1 % |
| B-VALUE(25/50℃) | 3500 K | B-TOLERANCE(±) | 1 % |

| T(℃) | Rmin(Ω) | Rnom(Ω) | Rmax(Ω) |
|---|---|---|---|
| -40 | 1.512E+006 | 1.578E+006 | 1.647E+006 |
| -39 | 1.426E+006 | 1.488E+006 | 1.552E+006 |
| -38 | 1.346E+006 | 1.403E+006 | 1.462E+006 |
| -37 | 1.270E+006 | 1.323E+006 | 1.378E+006 |
| -36 | 1.199E+006 | 1.249E+006 | 1.300E+006 |
| -35 | 1.133E+006 | 1.179E+006 | 1.226E+006 |
| -34 | 1.070E+006 | 1.113E+006 | 1.157E+006 |
| -33 | 1.012E+006 | 1.051E+006 | 1.092E+006 |
| -32 | 9.566E+005 | 9.935E+005 | 1.032E+006 |
| -31 | 9.049E+005 | 9.392E+005 | 9.747E+005 |
| -30 | 8.562E+005 | 8.881E+005 | 9.212E+005 |
| -29 | 8.103E+005 | 8.400E+005 | 8.708E+005 |
| -28 | 7.672E+005 | 7.949E+005 | 8.234E+005 |
| -27 | 7.266E+005 | 7.524E+005 | 7.790E+005 |
| -26 | 6.885E+005 | 7.125E+005 | 7.372E+005 |
| -25 | 6.526E+005 | 6.749E+005 | 6.980E+005 |
| -24 | 6.188E+005 | 6.396E+005 | 6.611E+005 |
| -23 | 5.869E+005 | 6.064E+005 | 6.264E+005 |
| -22 | 5.570E+005 | 5.751E+005 | 5.937E+005 |
| -21 | 5.287E+005 | 5.456E+005 | 5.630E+005 |
| -20 | 5.020E+005 | 5.178E+005 | 5.340E+005 |
| -19 | 4.769E+005 | 4.916E+005 | 5.067E+005 |
| -18 | 4.532E+005 | 4.669E+005 | 4.810E+005 |
| -17 | 4.308E+005 | 4.436E+005 | 4.567E+005 |
| -16 | 4.097E+005 | 4.216E+005 | 4.339E+005 |
| -15 | 3.897E+005 | 4.008E+005 | 4.123E+005 |
| -14 | 3.708E+005 | 3.812E+005 | 3.919E+005 |
| -13 | 3.530E+005 | 3.627E+005 | 3.727E+005 |
| -12 | 3.361E+005 | 3.452E+005 | 3.545E+005 |
| -11 | 3.201E+005 | 3.286E+005 | 3.373E+005 |
| -10 | 3.050E+005 | 3.130E+005 | 3.211E+005 |
| -9 | 2.907E+005 | 2.981E+005 | 3.057E+005 |
| -8 | 2.772E+005 | 2.841E+005 | 2.912E+005 |
| -7 | 2.644E+005 | 2.708E+005 | 2.774E+005 |
| -6 | 2.522E+005 | 2.583E+005 | 2.644E+005 |
| -5 | 2.407E+005 | 2.463E+005 | 2.521E+005 |
| -4 | 2.298E+005 | 2.350E+005 | 2.404E+005 |
| -3 | 2.194E+005 | 2.243E+005 | 2.293E+005 |
| -2 | 2.096E+005 | 2.142E+005 | 2.188E+005 |
| -1 | 2.002E+005 | 2.045E+005 | 2.089E+005 |
| 0 | 1.913E+005 | 1.954E+005 | 1.995E+005 |

| T(℃) | Rmin(Ω) | Rnom(Ω) | Rmax(Ω) |
|---|---|---|---|
| 0 | 1.913E+005 | 1.954E+005 | 1.995E+005 |
| 1 | 1.829E+005 | 1.867E+005 | 1.905E+005 |
| 2 | 1.749E+005 | 1.784E+005 | 1.820E+005 |
| 3 | 1.673E+005 | 1.706E+005 | 1.739E+005 |
| 4 | 1.601E+005 | 1.632E+005 | 1.663E+005 |
| 5 | 1.532E+005 | 1.561E+005 | 1.590E+005 |
| 6 | 1.467E+005 | 1.494E+005 | 1.521E+005 |
| 7 | 1.405E+005 | 1.430E+005 | 1.455E+005 |
| 8 | 1.345E+005 | 1.369E+005 | 1.392E+005 |
| 9 | 1.289E+005 | 1.311E+005 | 1.333E+005 |
| 10 | 1.235E+005 | 1.256E+005 | 1.276E+005 |
| 11 | 1.184E+005 | 1.203E+005 | 1.222E+005 |
| 12 | 1.136E+005 | 1.153E+005 | 1.171E+005 |
| 13 | 1.089E+005 | 1.106E+005 | 1.122E+005 |
| 14 | 1.045E+005 | 1.060E+005 | 1.076E+005 |
| 15 | 1.003E+005 | 1.017E+005 | 1.031E+005 |
| 16 | 9.625E+004 | 9.758E+004 | 9.892E+004 |
| 17 | 9.242E+004 | 9.365E+004 | 9.489E+004 |
| 18 | 8.875E+004 | 8.990E+004 | 9.106E+004 |
| 19 | 8.525E+004 | 8.632E+004 | 8.740E+004 |
| 20 | 8.191E+004 | 8.291E+004 | 8.390E+004 |
| 21 | 7.872E+004 | 7.965E+004 | 8.057E+004 |
| 22 | 7.568E+004 | 7.653E+004 | 7.739E+004 |
| 23 | 7.277E+004 | 7.356E+004 | 7.435E+004 |
| 24 | 6.998E+004 | 7.072E+004 | 7.145E+004 |
| 25 | 6.732E+004 | 6.800E+004 | 6.868E+004 |
| 26 | 6.472E+004 | 6.540E+004 | 6.608E+004 |
| 27 | 6.224E+004 | 6.292E+004 | 6.360E+004 |
| 28 | 5.987E+004 | 6.054E+004 | 6.122E+004 |
| 29 | 5.760E+004 | 5.827E+004 | 5.895E+004 |
| 30 | 5.543E+004 | 5.610E+004 | 5.677E+004 |
| 31 | 5.335E+004 | 5.402E+004 | 5.468E+004 |
| 32 | 5.137E+004 | 5.202E+004 | 5.269E+004 |
| 33 | 4.946E+004 | 5.012E+004 | 5.077E+004 |
| 34 | 4.764E+004 | 4.829E+004 | 4.894E+004 |
| 35 | 4.590E+004 | 4.654E+004 | 4.718E+004 |
| 36 | 4.423E+004 | 4.486E+004 | 4.550E+004 |
| 37 | 4.263E+004 | 4.325E+004 | 4.388E+004 |
| 38 | 4.109E+004 | 4.171E+004 | 4.234E+004 |
| 39 | 3.962E+004 | 4.023E+004 | 4.085E+004 |
| 40 | 3.821E+004 | 3.882E+004 | 3.942E+004 |

# NTC THERMISTOR R-T CHARACTERISTICS

| TYPE | TH11-3K683F[T,B] |
|---|---|

| | | | |
|---|---|---|---|
| RESISTANCE(at25℃) | 68000 Ω | R-TOLERANCE(±) | 1 % |
| B-VALUE(25/50℃) | 3500 K | B-TOLERANCE(±) | 1 % |

| T(℃) | Rmin(Ω) | Rnom(Ω) | Rmax(Ω) |
|---|---|---|---|
| 40 | 3.821E+004 | 3.882E+004 | 3.942E+004 |
| 41 | 3.686E+004 | 3.746E+004 | 3.806E+004 |
| 42 | 3.556E+004 | 3.615E+004 | 3.675E+004 |
| 43 | 3.432E+004 | 3.490E+004 | 3.549E+004 |
| 44 | 3.313E+004 | 3.370E+004 | 3.428E+004 |
| 45 | 3.198E+004 | 3.254E+004 | 3.311E+004 |
| 46 | 3.088E+004 | 3.144E+004 | 3.200E+004 |
| 47 | 2.983E+004 | 3.037E+004 | 3.092E+004 |
| 48 | 2.881E+004 | 2.935E+004 | 2.989E+004 |
| 49 | 2.784E+004 | 2.837E+004 | 2.890E+004 |
| 50 | 2.690E+004 | 2.742E+004 | 2.795E+004 |
| 51 | 2.600E+004 | 2.651E+004 | 2.703E+004 |
| 52 | 2.514E+004 | 2.564E+004 | 2.615E+004 |
| 53 | 2.431E+004 | 2.480E+004 | 2.530E+004 |
| 54 | 2.351E+004 | 2.399E+004 | 2.449E+004 |
| 55 | 2.274E+004 | 2.321E+004 | 2.370E+004 |
| 56 | 2.200E+004 | 2.247E+004 | 2.294E+004 |
| 57 | 2.128E+004 | 2.175E+004 | 2.221E+004 |
| 58 | 2.060E+004 | 2.105E+004 | 2.151E+004 |
| 59 | 1.994E+004 | 2.038E+004 | 2.084E+004 |
| 60 | 1.930E+004 | 1.974E+004 | 2.019E+004 |
| 61 | 1.869E+004 | 1.912E+004 | 1.956E+004 |
| 62 | 1.810E+004 | 1.852E+004 | 1.895E+004 |
| 63 | 1.753E+004 | 1.795E+004 | 1.837E+004 |
| 64 | 1.699E+004 | 1.739E+004 | 1.781E+004 |
| 65 | 1.646E+004 | 1.686E+004 | 1.727E+004 |
| 66 | 1.595E+004 | 1.634E+004 | 1.674E+004 |
| 67 | 1.546E+004 | 1.585E+004 | 1.624E+004 |
| 68 | 1.499E+004 | 1.537E+004 | 1.575E+004 |
| 69 | 1.453E+004 | 1.490E+004 | 1.528E+004 |
| 70 | 1.410E+004 | 1.446E+004 | 1.483E+004 |
| 71 | 1.367E+004 | 1.403E+004 | 1.439E+004 |
| 72 | 1.326E+004 | 1.361E+004 | 1.397E+004 |
| 73 | 1.287E+004 | 1.321E+004 | 1.356E+004 |
| 74 | 1.249E+004 | 1.283E+004 | 1.317E+004 |
| 75 | 1.212E+004 | 1.245E+004 | 1.279E+004 |
| 76 | 1.177E+004 | 1.209E+004 | 1.242E+004 |
| 77 | 1.142E+004 | 1.174E+004 | 1.207E+004 |
| 78 | 1.109E+004 | 1.140E+004 | 1.172E+004 |
| 79 | 1.077E+004 | 1.108E+004 | 1.139E+004 |
| 80 | 1.046E+004 | 1.076E+004 | 1.107E+004 |

| T(℃) | Rmin(Ω) | Rnom(Ω) | Rmax(Ω) |
|---|---|---|---|
| 80 | 1.046E+004 | 1.076E+004 | 1.107E+004 |
| 81 | 1.016E+004 | 1.046E+004 | 1.076E+004 |
| 82 | 9.874E+003 | 1.016E+004 | 1.046E+004 |
| 83 | 9.594E+003 | 9.878E+003 | 1.017E+004 |
| 84 | 9.323E+003 | 9.602E+003 | 9.888E+003 |
| 85 | 9.062E+003 | 9.335E+003 | 9.616E+003 |
| 86 | 8.809E+003 | 9.077E+003 | 9.352E+003 |
| 87 | 8.564E+003 | 8.827E+003 | 9.097E+003 |
| 88 | 8.327E+003 | 8.585E+003 | 8.851E+003 |
| 89 | 8.098E+003 | 8.351E+003 | 8.612E+003 |
| 90 | 7.876E+003 | 8.125E+003 | 8.380E+003 |
| 91 | 7.662E+003 | 7.906E+003 | 8.156E+003 |
| 92 | 7.454E+003 | 7.693E+003 | 7.940E+003 |
| 93 | 7.253E+003 | 7.488E+003 | 7.729E+003 |
| 94 | 7.058E+003 | 7.289E+003 | 7.526E+003 |
| 95 | 6.870E+003 | 7.096E+003 | 7.328E+003 |
| 96 | 6.687E+003 | 6.908E+003 | 7.137E+003 |
| 97 | 6.509E+003 | 6.727E+003 | 6.951E+003 |
| 98 | 6.338E+003 | 6.551E+003 | 6.771E+003 |
| 99 | 6.171E+003 | 6.381E+003 | 6.597E+003 |
| 100 | 6.010E+003 | 6.215E+003 | 6.427E+003 |
| 101 | 5.853E+003 | 6.055E+003 | 6.263E+003 |
| 102 | 5.701E+003 | 5.899E+003 | 6.104E+003 |
| 103 | 5.554E+003 | 5.749E+003 | 5.949E+003 |
| 104 | 5.411E+003 | 5.602E+003 | 5.799E+003 |
| 105 | 5.273E+003 | 5.460E+003 | 5.653E+003 |
| 106 | 5.138E+003 | 5.322E+003 | 5.512E+003 |
| 107 | 5.008E+003 | 5.188E+003 | 5.375E+003 |
| 108 | 4.881E+003 | 5.058E+003 | 5.241E+003 |
| 109 | 4.758E+003 | 4.932E+003 | 5.112E+003 |
| 110 | 4.639E+003 | 4.810E+003 | 4.986E+003 |
| 111 | 4.523E+003 | 4.690E+003 | 4.863E+003 |
| 112 | 4.410E+003 | 4.575E+003 | 4.745E+003 |
| 113 | 4.301E+003 | 4.462E+003 | 4.629E+003 |
| 114 | 4.195E+003 | 4.353E+003 | 4.517E+003 |
| 115 | 4.092E+003 | 4.247E+003 | 4.408E+003 |
| 116 | 3.992E+003 | 4.144E+003 | 4.302E+003 |
| 117 | 3.894E+003 | 4.044E+003 | 4.199E+003 |
| 118 | 3.800E+003 | 3.947E+003 | 4.099E+003 |
| 119 | 3.708E+003 | 3.852E+003 | 4.002E+003 |
| 120 | 3.619E+003 | 3.760E+003 | 3.907E+003 |
| 121 | 3.532E+003 | 3.671E+003 | 3.815E+003 |
| 122 | 3.448E+003 | 3.584E+003 | 3.726E+003 |
| 123 | 3.366E+003 | 3.500E+003 | 3.639E+003 |
| 124 | 3.286E+003 | 3.418E+003 | 3.555E+003 |
| 125 | 3.209E+003 | 3.338E+003 | 3.472E+003 |