

# PT3-25E2

|               |         |       |
|---------------|---------|-------|
| T=            | 200.000 | degC  |
| R=            | 0.550   | k ohm |
| (B Std.Value) | 4300    | K     |
| from          | -50     | degC  |
| to            | 34      | degC  |
| Step          | 1       | degC  |
| R Tolerance   | 3       | %     |
| B Tolerance   | 3       | %     |

|   | TEMP.   | R Value  |
|---|---------|----------|
| 1 | 100     | 6.281754 |
| 2 | 200     | 0.550000 |
|   | B value | 4300     |

PRT Ver.5

**Attention !**

**This calculation value is a reference value.  
Officially, please request to our company.**

| Temp. (degC) | ResistanceValue |             |             | R Tolerance |        | Temp.Tolerance |       |
|--------------|-----------------|-------------|-------------|-------------|--------|----------------|-------|
|              | Min.            | Std.        | Max.        | Rmin.%      | Rmax.% | Rmin.          | Rmax. |
| -50          | 4839.141356     | 6770.952939 | 9465.427666 | -28.53      | 39.79  | 3.99           | -5.57 |
| -49          | 4518.300987     | 6305.747751 | 8792.390901 | -28.35      | 39.43  | 4.00           | -5.56 |
| -48          | 4220.813269     | 5875.535747 | 8171.612526 | -28.16      | 39.08  | 4.00           | -5.55 |
| -47          | 3944.835168     | 5477.468775 | 7598.710847 | -27.98      | 38.73  | 4.00           | -5.54 |
| -46          | 3688.679917     | 5108.947309 | 7069.697558 | -27.80      | 38.38  | 4.01           | -5.53 |
| -45          | 3450.802881     | 4767.597332 | 6580.940180 | -27.62      | 38.03  | 4.01           | -5.52 |
| -44          | 3229.788788     | 4451.249496 | 6129.128284 | -27.44      | 37.69  | 4.01           | -5.51 |
| -43          | 3024.340162     | 4157.920321 | 5711.243114 | -27.26      | 37.36  | 4.01           | -5.50 |
| -42          | 2833.266865     | 3885.795229 | 5324.530240 | -27.09      | 37.03  | 4.02           | -5.49 |
| -41          | 2655.476618     | 3633.213212 | 4966.474922 | -26.91      | 36.70  | 4.02           | -5.48 |
| -40          | 2489.966412     | 3398.652975 | 4634.779905 | -26.74      | 36.37  | 4.02           | -5.47 |
| -39          | 2335.814718     | 3180.720415 | 4327.345398 | -26.56      | 36.05  | 4.02           | -5.46 |
| -38          | 2192.174422     | 2978.137272 | 4042.250994 | -26.39      | 35.73  | 4.02           | -5.45 |
| -37          | 2058.266402     | 2789.730870 | 3777.739353 | -26.22      | 35.42  | 4.03           | -5.44 |
| -36          | 1933.373703     | 2614.424810 | 3532.201448 | -26.05      | 35.10  | 4.03           | -5.43 |
| -35          | 1816.836235     | 2451.230541 | 3304.163232 | -25.88      | 34.80  | 4.03           | -5.42 |
| -34          | 1708.045957     | 2299.239706 | 3092.273572 | -25.71      | 34.49  | 4.03           | -5.41 |
| -33          | 1606.442486     | 2157.617201 | 2895.293324 | -25.55      | 34.19  | 4.03           | -5.40 |
| -32          | 1511.509111     | 2025.594872 | 2712.085441 | -25.38      | 33.89  | 4.03           | -5.39 |
| -31          | 1422.769147     | 1902.465780 | 2541.606004 | -25.21      | 33.60  | 4.03           | -5.38 |
| -30          | 1339.782626     | 1787.578998 | 2382.896088 | -25.05      | 33.30  | 4.04           | -5.36 |
| -29          | 1262.143269     | 1680.334866 | 2235.074384 | -24.89      | 33.01  | 4.04           | -5.35 |
| -28          | 1189.475730     | 1580.180685 | 2097.330496 | -24.73      | 32.73  | 4.04           | -5.34 |
| -27          | 1121.433073     | 1486.606782 | 1968.918856 | -24.56      | 32.44  | 4.04           | -5.33 |
| -26          | 1057.694475     | 1399.142936 | 1849.153191 | -24.40      | 32.16  | 4.04           | -5.32 |
| -25          | 997.963120      | 1317.355112 | 1737.401489 | -24.24      | 31.89  | 4.04           | -5.31 |
| -24          | 941.964278      | 1240.842489 | 1633.081420 | -24.09      | 31.61  | 4.04           | -5.30 |
| -23          | 889.443545      | 1169.234735 | 1535.656169 | -23.93      | 31.34  | 4.04           | -5.29 |
| -22          | 840.165234      | 1102.189538 | 1444.630638 | -23.77      | 31.07  | 4.04           | -5.28 |
| -21          | 793.910900      | 1039.390331 | 1359.547981 | -23.62      | 30.80  | 4.04           | -5.27 |
| -20          | 750.477990      | 980.544226  | 1279.986451 | -23.46      | 30.54  | 4.04           | -5.26 |
| -19          | 709.678602      | 925.380116  | 1205.556518 | -23.31      | 30.28  | 4.04           | -5.25 |
| -18          | 671.338354      | 873.646947  | 1135.898241 | -23.16      | 30.02  | 4.04           | -5.23 |
| -17          | 635.295337      | 825.112125  | 1070.678865 | -23.00      | 29.76  | 4.04           | -5.22 |
| -16          | 601.399164      | 779.560070  | 1009.590628 | -22.85      | 29.51  | 4.04           | -5.21 |
| -15          | 569.510088      | 736.790878  | 952.348755  | -22.70      | 29.26  | 4.04           | -5.20 |
| -14          | 539.498194      | 696.619105  | 898.689621  | -22.55      | 29.01  | 4.04           | -5.19 |
| -13          | 511.242661      | 658.872646  | 848.369072  | -22.41      | 28.76  | 4.03           | -5.18 |
| -12          | 484.631078      | 623.391708  | 801.160889  | -22.26      | 28.52  | 4.03           | -5.17 |
| -11          | 459.558816      | 590.027864  | 756.855377  | -22.11      | 28.27  | 4.03           | -5.16 |
| -10          | 435.928447      | 558.643192  | 715.258075  | -21.97      | 28.03  | 4.03           | -5.15 |
| -9           | 413.649219      | 529.109474  | 676.188570  | -21.82      | 27.80  | 4.03           | -5.13 |

|    |            |            |            |        |       |         |         |
|----|------------|------------|------------|--------|-------|---------|---------|
| -8 | 392.636561 | 501.307467 | 639.479416 | -21.68 | 27.56 | 4.03    | -5.12   |
| -7 | 372.811630 | 475.126231 | 604.975131 | -21.53 | 27.33 | 4.03    | -5.11   |
| -6 | 354.100899 | 450.462504 | 572.531287 | -21.39 | 27.10 | 4.03    | -5.10   |
| -5 | 336.435767 | 427.220140 | 542.013663 | -21.25 | 26.87 | 4.02    | -5.09   |
| -4 | 319.752211 | 405.309576 | 513.297479 | -21.11 | 26.64 | 4.02    | -5.08   |
| -3 | 303.990453 | 384.647354 | 486.266682 | -20.97 | 26.42 | 4.02    | -5.06   |
| -2 | 289.094657 | 365.155672 | 460.813290 | -20.83 | 26.20 | 4.02    | -5.05   |
| -1 | 275.012656 | 346.761974 | 436.836795 | -20.69 | 25.98 | 4.02    | -5.04   |
| 0  | 261.695686 | 329.398570 | 414.243607 | -20.55 | 25.76 | 3.98    | -4.99   |
| 1  | 248.894814 | 312.746784 | 392.625783 | -20.42 | 25.54 | 3.95    | -4.94   |
| 2  | 236.794274 | 297.033544 | 372.262043 | -20.28 | 25.33 | 3.95    | -4.93   |
| 3  | 225.351940 | 282.200823 | 353.072759 | -20.14 | 25.11 | 3.94    | -4.92   |
| 4  | 214.528439 | 268.194485 | 334.983776 | -20.01 | 24.90 | 3.94    | -4.91   |
| 5  | 204.286956 | 254.964002 | 317.926008 | -19.88 | 24.69 | 3.94    | -4.90   |
| 6  | 194.593056 | 242.462196 | 301.835064 | -19.74 | 24.49 | 3.94    | -4.89   |
| 7  | 185.414518 | 230.645003 | 286.650909 | -19.61 | 24.28 | 3.94    | -4.87   |
| 8  | 176.721183 | 219.471250 | 272.317544 | -19.48 | 24.08 | 3.93    | -4.86   |
| 9  | 168.484809 | 208.902448 | 258.782718 | -19.35 | 23.88 | 3.93    | -4.85   |
| 10 | 160.678941 | 198.902612 | 245.997657 | -19.22 | 23.68 | 3.93    | -4.84   |
| 11 | 153.278793 | 189.438076 | 233.916813 | -19.09 | 23.48 | 3.93    | -4.83   |
| 12 | 146.261127 | 180.477341 | 222.497641 | -18.96 | 23.28 | 3.92    | -4.82   |
| 13 | 139.604157 | 171.990918 | 211.700379 | -18.83 | 23.09 | 3.92    | -4.81   |
| 14 | 133.287444 | 163.951193 | 201.487859 | -18.70 | 22.90 | 3.92    | -4.80   |
| 15 | 127.291813 | 156.332302 | 191.825321 | -18.58 | 22.70 | 3.92    | -4.79   |
| 16 | 121.599261 | 149.110004 | 182.680246 | -18.45 | 22.51 | 3.91    | -4.77   |
| 17 | 116.192889 | 142.261578 | 174.022201 | -18.32 | 22.33 | 3.91    | -4.76   |
| 18 | 111.056819 | 135.765718 | 165.822695 | -18.20 | 22.14 | 3.91    | -4.75   |
| 19 | 106.176137 | 129.602437 | 158.055048 | -18.08 | 21.95 | 3.90    | -4.74   |
| 20 | 101.536823 | 123.752980 | 150.694264 | -17.95 | 21.77 | 3.90    | -4.73   |
| 21 | 97.125696  | 118.199744 | 143.716915 | -17.83 | 21.59 | 3.89    | -4.72   |
| 22 | 92.930359  | 112.926198 | 137.101043 | -17.71 | 21.41 | 3.89    | -4.70   |
| 23 | 88.939151  | 107.916817 | 130.826052 | -17.59 | 21.23 | 3.89    | -4.69   |
| 24 | 85.141095  | 103.157012 | 124.872622 | -17.46 | 21.05 | 3.88    | -4.68   |
| 25 | 81.525860  | 98.633071  | 119.222624 | -17.34 | 20.87 | 3.88    | -4.67   |
| 26 | 78.083717  | 94.332103  | 113.859037 | -17.22 | 20.70 | 3.87    | -4.66   |
| 27 | 74.805502  | 90.241983  | 108.765880 | -17.11 | 20.53 | 3.87    | -4.64   |
| 28 | 71.682580  | 86.351307  | 103.928141 | -16.99 | 20.36 | 3.87    | -4.63   |
| 29 | 68.706811  | 82.649338  | 99.331713  | -16.87 | 20.18 | 3.86    | -4.62   |
| 30 | 65.870523  | 79.125973  | 94.963338  | -16.75 | 20.02 | 3.86    | -4.61   |
| 31 | 63.166478  | 75.771695  | 90.810549  | -16.64 | 19.85 | 3.85    | -4.60   |
| 32 | 60.587852  | 72.577543  | 86.861621  | -16.52 | 19.68 | 3.85    | -4.58   |
| 33 | 58.128202  | 69.535071  | 83.105522  | -16.40 | 19.52 | 3.84    | -4.57   |
| 34 | 55.781447  | 66.636320  | 79.531871  | -16.29 | 19.35 | #DIV/0! | #DIV/0! |

# PT3-25E2-S2

|               |         |       |
|---------------|---------|-------|
| T=            | 200.000 | degC  |
| R=            | 0.550   | k ohm |
| (B Std.Value) | 4300    | K     |
| from          | 34      | degC  |
| to            | 118     | degC  |
| Step          | 1       | degC  |
| R Tolerance   | 3       | %     |
| B Tolerance   | 3       | %     |

|   | TEMP.   | R Value  |
|---|---------|----------|
| 1 | 100     | 6.281754 |
| 2 | 200     | 0.550000 |
|   | B value | 4300     |

PRT Ver.5

**Attention !**

**This calculation value is a reference value.  
Officially, please request to our company.**

| Temp. (degC) | Resistance Value |           |           | R Tolerance |        | Temp.Tolerance |       |
|--------------|------------------|-----------|-----------|-------------|--------|----------------|-------|
|              | Min.             | Std.      | Max.      | Rmin.%      | Rmax.% | Rmin.          | Rmax. |
| 34           | 55.781447        | 66.636320 | 79.531871 | -16.29      | 19.35  | 3.84           | -4.56 |
| 35           | 53.541846        | 63.873786 | 76.130895 | -16.18      | 19.19  | 3.83           | -4.55 |
| 36           | 51.403978        | 61.240391 | 72.893390 | -16.06      | 19.03  | 3.83           | -4.53 |
| 37           | 49.362720        | 58.729461 | 69.810687 | -15.95      | 18.87  | 3.82           | -4.52 |
| 38           | 47.413233        | 56.334697 | 66.874618 | -15.84      | 18.71  | 3.81           | -4.51 |
| 39           | 45.550940        | 54.050151 | 64.077483 | -15.72      | 18.55  | 3.81           | -4.49 |
| 40           | 43.771515        | 51.870211 | 61.412025 | -15.61      | 18.40  | 3.80           | -4.48 |
| 41           | 42.070869        | 49.789576 | 58.871397 | -15.50      | 18.24  | 3.80           | -4.47 |
| 42           | 40.445129        | 47.803237 | 56.449142 | -15.39      | 18.09  | 3.79           | -4.45 |
| 43           | 38.890635        | 45.906462 | 54.139166 | -15.28      | 17.93  | 3.79           | -4.44 |
| 44           | 37.403920        | 44.094777 | 51.935719 | -15.17      | 17.78  | 3.78           | -4.43 |
| 45           | 35.981701        | 42.363955 | 49.833370 | -15.07      | 17.63  | 3.77           | -4.42 |
| 46           | 34.620872        | 40.709994 | 47.826990 | -14.96      | 17.48  | 3.77           | -4.40 |
| 47           | 33.318487        | 39.129113 | 45.911735 | -14.85      | 17.33  | 3.76           | -4.39 |
| 48           | 32.071758        | 37.617732 | 44.083027 | -14.74      | 17.19  | 3.75           | -4.38 |
| 49           | 30.878041        | 36.172462 | 42.336540 | -14.64      | 17.04  | 3.75           | -4.36 |
| 50           | 29.734830        | 34.790096 | 40.668182 | -14.53      | 16.90  | 3.74           | -4.35 |
| 51           | 28.639748        | 33.467596 | 39.074085 | -14.43      | 16.75  | 3.73           | -4.33 |
| 52           | 27.590542        | 32.202086 | 37.550589 | -14.32      | 16.61  | 3.73           | -4.32 |
| 53           | 26.585073        | 30.990841 | 36.094232 | -14.22      | 16.47  | 3.72           | -4.31 |
| 54           | 25.621314        | 29.831276 | 34.701737 | -14.11      | 16.33  | 3.71           | -4.29 |
| 55           | 24.697337        | 28.720943 | 33.370001 | -14.01      | 16.19  | 3.70           | -4.28 |
| 56           | 23.811314        | 27.657521 | 32.096087 | -13.91      | 16.05  | 3.70           | -4.26 |
| 57           | 22.961510        | 26.638808 | 30.877212 | -13.80      | 15.91  | 3.69           | -4.25 |
| 58           | 22.146275        | 25.662715 | 29.710739 | -13.70      | 15.77  | 3.68           | -4.24 |
| 59           | 21.364043        | 24.727261 | 28.594172 | -13.60      | 15.64  | 3.67           | -4.22 |
| 60           | 20.613325        | 23.830564 | 27.525140 | -13.50      | 15.50  | 3.66           | -4.21 |
| 61           | 19.892706        | 22.970839 | 26.501401 | -13.40      | 15.37  | 3.66           | -4.19 |
| 62           | 19.200840        | 22.146392 | 25.520823 | -13.30      | 15.24  | 3.65           | -4.18 |
| 63           | 18.536448        | 21.355610 | 24.581388 | -13.20      | 15.11  | 3.64           | -4.17 |
| 64           | 17.898313        | 20.596966 | 23.681180 | -13.10      | 14.97  | 3.63           | -4.15 |
| 65           | 17.285278        | 19.869004 | 22.818379 | -13.00      | 14.84  | 3.62           | -4.14 |
| 66           | 16.696241        | 19.170345 | 21.991259 | -12.91      | 14.71  | 3.61           | -4.12 |
| 67           | 16.130153        | 18.499674 | 21.198182 | -12.81      | 14.59  | 3.61           | -4.11 |
| 68           | 15.586016        | 17.855743 | 20.437590 | -12.71      | 14.46  | 3.60           | -4.09 |
| 69           | 15.062880        | 17.237364 | 19.708004 | -12.61      | 14.33  | 3.59           | -4.08 |
| 70           | 14.559840        | 16.643408 | 19.008020 | -12.52      | 14.21  | 3.58           | -4.06 |
| 71           | 14.076032        | 16.072799 | 18.336301 | -12.42      | 14.08  | 3.57           | -4.05 |
| 72           | 13.610637        | 15.524515 | 17.691580 | -12.33      | 13.96  | 3.56           | -4.03 |
| 73           | 13.162869        | 14.997582 | 17.072649 | -12.23      | 13.84  | 3.55           | -4.02 |
| 74           | 12.731983        | 14.491073 | 16.478359 | -12.14      | 13.71  | 3.54           | -4.00 |
| 75           | 12.317268        | 14.004104 | 15.907620 | -12.05      | 13.59  | 3.53           | -3.99 |

|     |           |             |           |        |       |         |         |
|-----|-----------|-------------|-----------|--------|-------|---------|---------|
| 76  | 11.918044 | 13.535834   | 15.359392 | -11.95 | 13.47 | 3.52    | -3.97   |
| 77  | 11.533665 | 13.085463   | 14.832687 | -11.86 | 13.35 | 3.51    | -3.96   |
| 78  | 11.163512 | 12.652227   | 14.326565 | -11.77 | 13.23 | 3.50    | -3.94   |
| 79  | 10.806996 | 12.235397   | 13.840128 | -11.67 | 13.12 | 3.49    | -3.92   |
| 80  | 10.463555 | 11.83428043 | 13.372525 | -11.58 | 13.00 | 3.48    | -3.91   |
| 81  | 10.132652 | 11.448215   | 12.922942 | -11.49 | 12.88 | 3.47    | -3.89   |
| 82  | 9.813775  | 11.076571   | 12.490606 | -11.40 | 12.77 | 3.46    | -3.88   |
| 83  | 9.506434  | 10.718744   | 12.074778 | -11.31 | 12.65 | 3.45    | -3.86   |
| 84  | 9.210161  | 10.374163   | 11.674757 | -11.22 | 12.54 | 3.44    | -3.85   |
| 85  | 8.924509  | 10.042277   | 11.289872 | -11.13 | 12.42 | 3.43    | -3.83   |
| 86  | 8.649052  | 9.722565    | 10.919484 | -11.04 | 12.31 | 3.42    | -3.81   |
| 87  | 8.383382  | 9.414526    | 10.562984 | -10.95 | 12.20 | 3.41    | -3.80   |
| 88  | 8.127109  | 9.117685    | 10.219791 | -10.86 | 12.09 | 3.40    | -3.78   |
| 89  | 7.879861  | 8.831585    | 9.889350  | -10.78 | 11.98 | 3.39    | -3.77   |
| 90  | 7.641279  | 8.555792    | 9.571132  | -10.69 | 11.87 | 3.38    | -3.75   |
| 91  | 7.411025  | 8.289890    | 9.264632  | -10.60 | 11.76 | 3.37    | -3.73   |
| 92  | 7.188771  | 8.033481    | 8.969369  | -10.51 | 11.65 | 3.35    | -3.72   |
| 93  | 6.974205  | 7.786187    | 8.684882  | -10.43 | 11.54 | 3.34    | -3.70   |
| 94  | 6.767029  | 7.547644    | 8.410731  | -10.34 | 11.44 | 3.33    | -3.68   |
| 95  | 6.566956  | 7.317505    | 8.146497  | -10.26 | 11.33 | 3.32    | -3.67   |
| 96  | 6.373714  | 7.095439    | 7.891778  | -10.17 | 11.22 | 3.31    | -3.65   |
| 97  | 6.187041  | 6.881128    | 7.646193  | -10.09 | 11.12 | 3.30    | -3.63   |
| 98  | 6.006684  | 6.674268    | 7.409373  | -10.00 | 11.01 | 3.28    | -3.62   |
| 99  | 5.832405  | 6.474569    | 7.180970  | -9.92  | 10.91 | 3.27    | -3.60   |
| 100 | 5.663972  | 6.281754    | 6.960648  | -9.83  | 10.81 | 3.26    | -3.58   |
| 101 | 5.501165  | 6.095555    | 6.748088  | -9.75  | 10.71 | 3.25    | -3.57   |
| 102 | 5.343773  | 5.915718    | 6.542983  | -9.67  | 10.60 | 3.24    | -3.55   |
| 103 | 5.191594  | 5.741999    | 6.345041  | -9.59  | 10.50 | 3.22    | -3.53   |
| 104 | 5.044432  | 5.574164    | 6.153981  | -9.50  | 10.40 | 3.21    | -3.51   |
| 105 | 4.902102  | 5.411990    | 5.969536  | -9.42  | 10.30 | 3.20    | -3.50   |
| 106 | 4.764425  | 5.255262    | 5.791449  | -9.34  | 10.20 | 3.19    | -3.48   |
| 107 | 4.631229  | 5.103774    | 5.619474  | -9.26  | 10.10 | 3.17    | -3.46   |
| 108 | 4.502351  | 4.957331    | 5.453376  | -9.18  | 10.01 | 3.16    | -3.45   |
| 109 | 4.377633  | 4.815742    | 5.292930  | -9.10  | 9.91  | 3.15    | -3.43   |
| 110 | 4.256923  | 4.678828    | 5.137920  | -9.02  | 9.81  | 3.13    | -3.41   |
| 111 | 4.140076  | 4.546414    | 4.988140  | -8.94  | 9.72  | 3.12    | -3.39   |
| 112 | 4.026954  | 4.418335    | 4.843392  | -8.86  | 9.62  | 3.11    | -3.37   |
| 113 | 3.917421  | 4.294430    | 4.703486  | -8.78  | 9.53  | 3.09    | -3.36   |
| 114 | 3.811350  | 4.174547    | 4.568240  | -8.70  | 9.43  | 3.08    | -3.34   |
| 115 | 3.708617  | 4.058539    | 4.437480  | -8.62  | 9.34  | 3.07    | -3.32   |
| 116 | 3.609103  | 3.946264    | 4.311039  | -8.54  | 9.24  | 3.05    | -3.30   |
| 117 | 3.512695  | 3.837588    | 4.188757  | -8.47  | 9.15  | 3.04    | -3.28   |
| 118 | 3.419284  | 3.732380    | 4.070480  | -8.39  | 9.06  | #DIV/0! | #DIV/0! |

# PT3-25E2-S2

|               |         |       |
|---------------|---------|-------|
| T=            | 200.000 | degC  |
| R=            | 0.550   | k ohm |
| (B Std.Value) | 4300    | K     |
| from          | 118     | degC  |
| to            | 202     | degC  |
| Step          | 1       | degC  |
| R Tolerance   | 3       | %     |
| B Tolerance   | 3       | %     |

|   | TEMP.   | R Value  |
|---|---------|----------|
| 1 | 100     | 6.281754 |
| 2 | 200     | 0.550000 |
|   | B value | 4300     |

PRT Ver.5

**Attention !**

**This calculation value is a reference value.  
Officially, please request to our company.**

| Temp. (degC) | Resistance Value |          |          | R Tolerance |        | Temp. Tolerance |       |
|--------------|------------------|----------|----------|-------------|--------|-----------------|-------|
|              | Min.             | Std.     | Max.     | Rmin.%      | Rmax.% | Rmin.           | Rmax. |
| 118          | 3.419284         | 3.732380 | 4.070480 | -8.39       | 9.06   | 3.02            | -3.27 |
| 119          | 3.328763         | 3.630517 | 3.956060 | -8.31       | 8.97   | 3.01            | -3.25 |
| 120          | 3.241033         | 3.531877 | 3.845357 | -8.23       | 8.88   | 3.00            | -3.23 |
| 121          | 3.155996         | 3.436347 | 3.738235 | -8.16       | 8.79   | 2.98            | -3.21 |
| 122          | 3.073558         | 3.343815 | 3.634562 | -8.08       | 8.70   | 2.97            | -3.19 |
| 123          | 2.993630         | 3.254177 | 3.534216 | -8.01       | 8.61   | 2.95            | -3.17 |
| 124          | 2.916125         | 3.167328 | 3.437074 | -7.93       | 8.52   | 2.94            | -3.16 |
| 125          | 2.840961         | 3.083173 | 3.343024 | -7.86       | 8.43   | 2.92            | -3.14 |
| 126          | 2.768057         | 3.001616 | 3.251952 | -7.78       | 8.34   | 2.91            | -3.12 |
| 127          | 2.697337         | 2.922567 | 3.163754 | -7.71       | 8.25   | 2.89            | -3.10 |
| 128          | 2.628726         | 2.845939 | 3.078328 | -7.63       | 8.17   | 2.88            | -3.08 |
| 129          | 2.562153         | 2.771648 | 2.995574 | -7.56       | 8.08   | 2.86            | -3.06 |
| 130          | 2.497551         | 2.699615 | 2.915400 | -7.48       | 7.99   | 2.85            | -3.04 |
| 131          | 2.434852         | 2.629760 | 2.837715 | -7.41       | 7.91   | 2.83            | -3.02 |
| 132          | 2.373993         | 2.562011 | 2.762430 | -7.34       | 7.82   | 2.82            | -3.00 |
| 133          | 2.314914         | 2.496294 | 2.689464 | -7.27       | 7.74   | 2.80            | -2.98 |
| 134          | 2.257554         | 2.432543 | 2.618735 | -7.19       | 7.65   | 2.79            | -2.97 |
| 135          | 2.201859         | 2.370689 | 2.550167 | -7.12       | 7.57   | 2.77            | -2.95 |
| 136          | 2.147772         | 2.310669 | 2.483683 | -7.05       | 7.49   | 2.76            | -2.93 |
| 137          | 2.095241         | 2.252421 | 2.419214 | -6.98       | 7.41   | 2.74            | -2.91 |
| 138          | 2.044215         | 2.195888 | 2.356691 | -6.91       | 7.32   | 2.72            | -2.89 |
| 139          | 1.994646         | 2.141010 | 2.296046 | -6.84       | 7.24   | 2.71            | -2.87 |
| 140          | 1.946486         | 2.087734 | 2.237217 | -6.77       | 7.16   | 2.69            | -2.85 |
| 141          | 1.899690         | 2.036007 | 2.180141 | -6.70       | 7.08   | 2.67            | -2.83 |
| 142          | 1.854214         | 1.985777 | 2.124761 | -6.63       | 7.00   | 2.66            | -2.81 |
| 143          | 1.810016         | 1.936996 | 2.071019 | -6.56       | 6.92   | 2.64            | -2.79 |
| 144          | 1.767055         | 1.889616 | 2.018860 | -6.49       | 6.84   | 2.62            | -2.77 |
| 145          | 1.725291         | 1.843592 | 1.968232 | -6.42       | 6.76   | 2.61            | -2.75 |
| 146          | 1.684687         | 1.798879 | 1.919083 | -6.35       | 6.68   | 2.59            | -2.73 |
| 147          | 1.645206         | 1.755436 | 1.871366 | -6.28       | 6.60   | 2.57            | -2.71 |
| 148          | 1.606814         | 1.713222 | 1.825032 | -6.21       | 6.53   | 2.56            | -2.69 |
| 149          | 1.569475         | 1.672196 | 1.780038 | -6.14       | 6.45   | 2.54            | -2.67 |
| 150          | 1.533157         | 1.632322 | 1.736337 | -6.08       | 6.37   | 2.52            | -2.65 |
| 151          | 1.497828         | 1.593562 | 1.693890 | -6.01       | 6.30   | 2.51            | -2.63 |
| 152          | 1.463458         | 1.555882 | 1.652655 | -5.94       | 6.22   | 2.49            | -2.60 |
| 153          | 1.430016         | 1.519247 | 1.612592 | -5.87       | 6.14   | 2.47            | -2.58 |
| 154          | 1.397475         | 1.483623 | 1.573664 | -5.81       | 6.07   | 2.45            | -2.56 |
| 155          | 1.365807         | 1.448981 | 1.535836 | -5.74       | 5.99   | 2.43            | -2.54 |
| 156          | 1.334986         | 1.415288 | 1.499070 | -5.67       | 5.92   | 2.42            | -2.52 |
| 157          | 1.304984         | 1.382515 | 1.463335 | -5.61       | 5.85   | 2.40            | -2.50 |
| 158          | 1.275778         | 1.350635 | 1.428596 | -5.54       | 5.77   | 2.38            | -2.48 |
| 159          | 1.247344         | 1.319618 | 1.394823 | -5.48       | 5.70   | 2.36            | -2.46 |



|     |          |             |          |       |      |         |         |
|-----|----------|-------------|----------|-------|------|---------|---------|
| 160 | 1.219658 | 1.289439    | 1.361985 | -5.41 | 5.63 | 2.34    | -2.44   |
| 161 | 1.192698 | 1.260072    | 1.330053 | -5.35 | 5.55 | 2.33    | -2.42   |
| 162 | 1.166442 | 1.231492    | 1.298998 | -5.28 | 5.48 | 2.31    | -2.39   |
| 163 | 1.140870 | 1.203674    | 1.268794 | -5.22 | 5.41 | 2.29    | -2.37   |
| 164 | 1.115960 | 1.176597207 | 1.239413 | -5.15 | 5.34 | 2.27    | -2.35   |
| 165 | 1.091694 | 1.150237    | 1.210830 | -5.09 | 5.27 | 2.25    | -2.33   |
| 166 | 1.068052 | 1.124574    | 1.183021 | -5.03 | 5.20 | 2.23    | -2.31   |
| 167 | 1.045016 | 1.099585    | 1.155962 | -4.96 | 5.13 | 2.21    | -2.29   |
| 168 | 1.022569 | 1.075251    | 1.129629 | -4.90 | 5.06 | 2.19    | -2.26   |
| 169 | 1.000693 | 1.051552    | 1.104001 | -4.84 | 4.99 | 2.17    | -2.24   |
| 170 | 0.979371 | 1.028469    | 1.079057 | -4.77 | 4.92 | 2.16    | -2.22   |
| 171 | 0.958588 | 1.005985    | 1.054775 | -4.71 | 4.85 | 2.14    | -2.20   |
| 172 | 0.938328 | 0.984081    | 1.031136 | -4.65 | 4.78 | 2.12    | -2.18   |
| 173 | 0.918576 | 0.962740    | 1.008120 | -4.59 | 4.71 | 2.10    | -2.15   |
| 174 | 0.899318 | 0.941947    | 0.985708 | -4.53 | 4.65 | 2.08    | -2.13   |
| 175 | 0.880539 | 0.921684    | 0.963883 | -4.46 | 4.58 | 2.06    | -2.11   |
| 176 | 0.862225 | 0.901936    | 0.942628 | -4.40 | 4.51 | 2.04    | -2.09   |
| 177 | 0.844364 | 0.882690    | 0.921924 | -4.34 | 4.44 | 2.02    | -2.06   |
| 178 | 0.826943 | 0.863929    | 0.901756 | -4.28 | 4.38 | 2.00    | -2.04   |
| 179 | 0.809949 | 0.845640    | 0.882109 | -4.22 | 4.31 | 1.98    | -2.02   |
| 180 | 0.793371 | 0.827810    | 0.862966 | -4.16 | 4.25 | 1.96    | -2.00   |
| 181 | 0.777196 | 0.810425    | 0.844313 | -4.10 | 4.18 | 1.94    | -1.97   |
| 182 | 0.761414 | 0.793472    | 0.826136 | -4.04 | 4.12 | 1.92    | -1.95   |
| 183 | 0.746013 | 0.776940    | 0.808421 | -3.98 | 4.05 | 1.89    | -1.93   |
| 184 | 0.730984 | 0.760817    | 0.791155 | -3.92 | 3.99 | 1.87    | -1.91   |
| 185 | 0.716315 | 0.745090    | 0.774324 | -3.86 | 3.92 | 1.85    | -1.88   |
| 186 | 0.701997 | 0.729750    | 0.757917 | -3.80 | 3.86 | 1.83    | -1.86   |
| 187 | 0.688021 | 0.714784    | 0.741920 | -3.74 | 3.80 | 1.81    | -1.84   |
| 188 | 0.674376 | 0.700183    | 0.726323 | -3.69 | 3.73 | 1.79    | -1.81   |
| 189 | 0.661054 | 0.685936    | 0.711114 | -3.63 | 3.67 | 1.77    | -1.79   |
| 190 | 0.648046 | 0.672033    | 0.696281 | -3.57 | 3.61 | 1.75    | -1.77   |
| 191 | 0.635344 | 0.658466    | 0.681815 | -3.51 | 3.55 | 1.73    | -1.74   |
| 192 | 0.622940 | 0.645224    | 0.667705 | -3.45 | 3.48 | 1.70    | -1.72   |
| 193 | 0.610825 | 0.632299    | 0.653940 | -3.40 | 3.42 | 1.68    | -1.69   |
| 194 | 0.598991 | 0.619683    | 0.640512 | -3.34 | 3.36 | 1.66    | -1.67   |
| 195 | 0.587432 | 0.607366    | 0.627411 | -3.28 | 3.30 | 1.64    | -1.65   |
| 196 | 0.576139 | 0.595340    | 0.614628 | -3.23 | 3.24 | 1.62    | -1.62   |
| 197 | 0.565107 | 0.583599    | 0.602153 | -3.17 | 3.18 | 1.59    | -1.60   |
| 198 | 0.554327 | 0.572133    | 0.589979 | -3.11 | 3.12 | 1.57    | -1.58   |
| 199 | 0.543794 | 0.560936    | 0.578098 | -3.06 | 3.06 | 1.55    | -1.55   |
| 200 | 0.533500 | 0.550000    | 0.566500 | -3.00 | 3.00 | 1.53    | -1.53   |
| 201 | 0.522838 | 0.539319    | 0.555818 | -3.06 | 3.06 | 1.56    | -1.56   |
| 202 | 0.512430 | 0.528885    | 0.545377 | -3.11 | 3.12 | #DIV/0! | #DIV/0! |

# PT3-25E2-S2

|               |         |       |
|---------------|---------|-------|
| T=            | 200.000 | degC  |
| R=            | 0.550   | k ohm |
| (B Std.Value) | 4300    | K     |
| from          | 202     | degC  |
| to            | 286     | degC  |
| Step          | 1       | degC  |
| R Tolerance   | 3       | %     |
| B Tolerance   | 3       | %     |

|   | TEMP.   | R Value  |
|---|---------|----------|
| 1 | 100     | 6.281754 |
| 2 | 200     | 0.550000 |
|   | B value | 4300     |

PRT Ver.5

**Attention !**

**This calculation value is a reference value.  
Officially, please request to our company.**

| Temp. (degC) | Resistance Value |          |          | R Tolerance |        | Temp. Tolerance |       |
|--------------|------------------|----------|----------|-------------|--------|-----------------|-------|
|              | Min.             | Std.     | Max.     | Rmin.%      | Rmax.% | Rmin.           | Rmax. |
| 202          | 0.512430         | 0.528885 | 0.545377 | -3.11       | 3.12   | 1.60            | -1.60 |
| 203          | 0.502268         | 0.518692 | 0.535171 | -3.17       | 3.18   | 1.63            | -1.64 |
| 204          | 0.492345         | 0.508734 | 0.525195 | -3.22       | 3.24   | 1.67            | -1.67 |
| 205          | 0.482656         | 0.499004 | 0.515442 | -3.28       | 3.29   | 1.70            | -1.71 |
| 206          | 0.473194         | 0.489497 | 0.505906 | -3.33       | 3.35   | 1.73            | -1.75 |
| 207          | 0.463952         | 0.480206 | 0.496582 | -3.38       | 3.41   | 1.77            | -1.78 |
| 208          | 0.454926         | 0.471127 | 0.487465 | -3.44       | 3.47   | 1.80            | -1.82 |
| 209          | 0.446109         | 0.462252 | 0.478549 | -3.49       | 3.53   | 1.84            | -1.86 |
| 210          | 0.437495         | 0.453578 | 0.469829 | -3.55       | 3.58   | 1.88            | -1.89 |
| 211          | 0.429080         | 0.445099 | 0.461300 | -3.60       | 3.64   | 1.91            | -1.93 |
| 212          | 0.420857         | 0.436809 | 0.452958 | -3.65       | 3.70   | 1.95            | -1.97 |
| 213          | 0.412823         | 0.428705 | 0.444797 | -3.70       | 3.75   | 1.98            | -2.01 |
| 214          | 0.404972         | 0.420781 | 0.436814 | -3.76       | 3.81   | 2.02            | -2.05 |
| 215          | 0.397299         | 0.413032 | 0.429002 | -3.81       | 3.87   | 2.05            | -2.08 |
| 216          | 0.389800         | 0.405455 | 0.421360 | -3.86       | 3.92   | 2.09            | -2.12 |
| 217          | 0.382470         | 0.398045 | 0.413881 | -3.91       | 3.98   | 2.13            | -2.16 |
| 218          | 0.375304         | 0.390797 | 0.406563 | -3.96       | 4.03   | 2.16            | -2.20 |
| 219          | 0.368299         | 0.383708 | 0.399401 | -4.02       | 4.09   | 2.20            | -2.24 |
| 220          | 0.361451         | 0.376773 | 0.392391 | -4.07       | 4.15   | 2.23            | -2.28 |
| 221          | 0.354755         | 0.369988 | 0.385529 | -4.12       | 4.20   | 2.27            | -2.32 |
| 222          | 0.348207         | 0.363351 | 0.378813 | -4.17       | 4.26   | 2.31            | -2.36 |
| 223          | 0.341804         | 0.356857 | 0.372238 | -4.22       | 4.31   | 2.34            | -2.39 |
| 224          | 0.335542         | 0.350503 | 0.365801 | -4.27       | 4.36   | 2.38            | -2.43 |
| 225          | 0.329418         | 0.344284 | 0.359498 | -4.32       | 4.42   | 2.42            | -2.47 |
| 226          | 0.323427         | 0.338199 | 0.353327 | -4.37       | 4.47   | 2.45            | -2.51 |
| 227          | 0.317567         | 0.332243 | 0.347284 | -4.42       | 4.53   | 2.49            | -2.55 |
| 228          | 0.311835         | 0.326414 | 0.341367 | -4.47       | 4.58   | 2.53            | -2.59 |
| 229          | 0.306227         | 0.320708 | 0.335571 | -4.52       | 4.63   | 2.57            | -2.63 |
| 230          | 0.300739         | 0.315122 | 0.329895 | -4.56       | 4.69   | 2.60            | -2.67 |
| 231          | 0.295370         | 0.309653 | 0.324335 | -4.61       | 4.74   | 2.64            | -2.71 |
| 232          | 0.290116         | 0.304299 | 0.318889 | -4.66       | 4.79   | 2.68            | -2.75 |
| 233          | 0.284974         | 0.299057 | 0.313553 | -4.71       | 4.85   | 2.71            | -2.79 |
| 234          | 0.279942         | 0.293924 | 0.308326 | -4.76       | 4.90   | 2.75            | -2.84 |
| 235          | 0.275017         | 0.288897 | 0.303205 | -4.80       | 4.95   | 2.79            | -2.88 |
| 236          | 0.270196         | 0.283974 | 0.298187 | -4.85       | 5.00   | 2.83            | -2.92 |
| 237          | 0.265477         | 0.279153 | 0.293270 | -4.90       | 5.06   | 2.87            | -2.96 |
| 238          | 0.260857         | 0.274431 | 0.288451 | -4.95       | 5.11   | 2.90            | -3.00 |
| 239          | 0.256333         | 0.269805 | 0.283729 | -4.99       | 5.16   | 2.94            | -3.04 |
| 240          | 0.251905         | 0.265274 | 0.279101 | -5.04       | 5.21   | 2.98            | -3.08 |
| 241          | 0.247568         | 0.260835 | 0.274565 | -5.09       | 5.26   | 3.02            | -3.12 |
| 242          | 0.243322         | 0.256485 | 0.270118 | -5.13       | 5.32   | 3.06            | -3.17 |
| 243          | 0.239163         | 0.252224 | 0.265759 | -5.18       | 5.37   | 3.10            | -3.21 |

|     |          |             |          |       |      |         |         |
|-----|----------|-------------|----------|-------|------|---------|---------|
| 244 | 0.235090 | 0.248049    | 0.261486 | -5.22 | 5.42 | 3.14    | -3.25   |
| 245 | 0.231101 | 0.243957    | 0.257296 | -5.27 | 5.47 | 3.17    | -3.29   |
| 246 | 0.227194 | 0.239947    | 0.253189 | -5.32 | 5.52 | 3.21    | -3.34   |
| 247 | 0.223366 | 0.236017    | 0.249161 | -5.36 | 5.57 | 3.25    | -3.38   |
| 248 | 0.219616 | 0.232165852 | 0.245212 | -5.41 | 5.62 | 3.29    | -3.42   |
| 249 | 0.215943 | 0.228391    | 0.241339 | -5.45 | 5.67 | 3.33    | -3.46   |
| 250 | 0.212343 | 0.224690    | 0.237540 | -5.49 | 5.72 | 3.37    | -3.51   |
| 251 | 0.208817 | 0.221062    | 0.233815 | -5.54 | 5.77 | 3.41    | -3.55   |
| 252 | 0.205361 | 0.217505    | 0.230161 | -5.58 | 5.82 | 3.45    | -3.59   |
| 253 | 0.201974 | 0.214018    | 0.226577 | -5.63 | 5.87 | 3.49    | -3.64   |
| 254 | 0.198655 | 0.210600    | 0.223061 | -5.67 | 5.92 | 3.53    | -3.68   |
| 255 | 0.195402 | 0.207247    | 0.219612 | -5.72 | 5.97 | 3.57    | -3.72   |
| 256 | 0.192214 | 0.203960    | 0.216228 | -5.76 | 6.02 | 3.61    | -3.77   |
| 257 | 0.189089 | 0.200736    | 0.212908 | -5.80 | 6.06 | 3.65    | -3.81   |
| 258 | 0.186025 | 0.197574    | 0.209651 | -5.85 | 6.11 | 3.69    | -3.86   |
| 259 | 0.183022 | 0.194473    | 0.206454 | -5.89 | 6.16 | 3.73    | -3.90   |
| 260 | 0.180077 | 0.191431    | 0.203317 | -5.93 | 6.21 | 3.77    | -3.95   |
| 261 | 0.177190 | 0.188447    | 0.200239 | -5.97 | 6.26 | 3.81    | -3.99   |
| 262 | 0.174359 | 0.185520    | 0.197218 | -6.02 | 6.31 | 3.85    | -4.04   |
| 263 | 0.171583 | 0.182649    | 0.194253 | -6.06 | 6.35 | 3.89    | -4.08   |
| 264 | 0.168861 | 0.179832    | 0.191342 | -6.10 | 6.40 | 3.93    | -4.13   |
| 265 | 0.166192 | 0.177068    | 0.188485 | -6.14 | 6.45 | 3.97    | -4.17   |
| 266 | 0.163573 | 0.174355    | 0.185681 | -6.18 | 6.50 | 4.01    | -4.22   |
| 267 | 0.161005 | 0.171694    | 0.182928 | -6.23 | 6.54 | 4.05    | -4.26   |
| 268 | 0.158486 | 0.169083    | 0.180225 | -6.27 | 6.59 | 4.10    | -4.31   |
| 269 | 0.156015 | 0.166520    | 0.177571 | -6.31 | 6.64 | 4.14    | -4.35   |
| 270 | 0.153591 | 0.164004    | 0.174965 | -6.35 | 6.68 | 4.18    | -4.40   |
| 271 | 0.151213 | 0.161535    | 0.172407 | -6.39 | 6.73 | 4.22    | -4.44   |
| 272 | 0.148880 | 0.159112    | 0.169894 | -6.43 | 6.78 | 4.26    | -4.49   |
| 273 | 0.146591 | 0.156733    | 0.167427 | -6.47 | 6.82 | 4.30    | -4.54   |
| 274 | 0.144344 | 0.154398    | 0.165003 | -6.51 | 6.87 | 4.35    | -4.58   |
| 275 | 0.142140 | 0.152106    | 0.162623 | -6.55 | 6.91 | 4.39    | -4.63   |
| 276 | 0.139977 | 0.149855    | 0.160286 | -6.59 | 6.96 | 4.43    | -4.68   |
| 277 | 0.137854 | 0.147645    | 0.157990 | -6.63 | 7.01 | 4.47    | -4.72   |
| 278 | 0.135770 | 0.145475    | 0.155734 | -6.67 | 7.05 | 4.51    | -4.77   |
| 279 | 0.133725 | 0.143345    | 0.153518 | -6.71 | 7.10 | 4.56    | -4.82   |
| 280 | 0.131717 | 0.141252    | 0.151341 | -6.75 | 7.14 | 4.60    | -4.87   |
| 281 | 0.129747 | 0.139198    | 0.149203 | -6.79 | 7.19 | 4.64    | -4.91   |
| 282 | 0.127812 | 0.137180    | 0.147101 | -6.83 | 7.23 | 4.68    | -4.96   |
| 283 | 0.125913 | 0.135198    | 0.145037 | -6.87 | 7.28 | 4.73    | -5.01   |
| 284 | 0.124048 | 0.133251    | 0.143008 | -6.91 | 7.32 | 4.77    | -5.06   |
| 285 | 0.122217 | 0.131339    | 0.141014 | -6.94 | 7.37 | 4.81    | -5.11   |
| 286 | 0.120420 | 0.129461    | 0.139055 | -6.98 | 7.41 | #DIV/0! | #DIV/0! |



**PT3-25E2-S2**

|                      |                |              |
|----------------------|----------------|--------------|
| <b>T=</b>            | <b>200.000</b> | <b>degC</b>  |
| <b>R=</b>            | <b>0.550</b>   | <b>k ohm</b> |
| <b>(B Std.Value)</b> | <b>4300</b>    | <b>K</b>     |
| <b>from</b>          | <b>286</b>     | <b>degC</b>  |
| <b>to</b>            | <b>300</b>     | <b>degC</b>  |
| <b>Step</b>          | <b>1</b>       | <b>degC</b>  |
| <b>R Tolerance</b>   | <b>3</b>       | <b>%</b>     |
| <b>B Tolerance</b>   | <b>3</b>       | <b>%</b>     |

|          |                |                 |
|----------|----------------|-----------------|
|          | <b>TEMP.</b>   | <b>R Value</b>  |
| <b>1</b> | <b>100</b>     | <b>6.281754</b> |
| <b>2</b> | <b>200</b>     | <b>0.550000</b> |
|          | <b>B value</b> | <b>4300</b>     |

**PRT Ver.5**

## Attention

**This calculation value is a reference value.  
Officially, please request to our company.**

[illegible]

[illegible]