



**NTC Characteristic Values**

| Parameter                  | Symbol         | Conditions             |              |           |            | Value |      |     | Unit       |
|----------------------------|----------------|------------------------|--------------|-----------|------------|-------|------|-----|------------|
|                            |                | $V_{GE}$ [V]           | $V_{CE}$ [V] | $I_C$ [A] | $T_j$ [°C] | Min   | Typ  | Max |            |
| Rated resistance           | $R$            |                        |              |           | 25         |       | 5    |     | k $\Omega$ |
| Deviation of $R_{100}$     | $\Delta_{R/R}$ | $R_{100} = 493 \Omega$ |              |           | 100        | -5    |      | +5  | %          |
| Power dissipation          | $P$            |                        |              |           | 25         |       | 245  |     | mW         |
| Power dissipation constant |                |                        |              |           | 25         |       | 1,4  |     | mW/K       |
| B-value                    | $B_{(25/50)}$  | Tol. $\pm 2 \%$        |              |           | 25         |       | 3375 |     | K          |
| B-value                    | $B_{(25/100)}$ | Tol. $\pm 2 \%$        |              |           | 25         |       | 3437 |     | K          |
| Vincotech NTC Reference    |                |                        |              |           |            |       |      | K   |            |

| Temp. [°C] | R Nom [ $\Omega$ ] | R Min [ $\Omega$ ] | R Max [ $\Omega$ ] |
|------------|--------------------|--------------------|--------------------|
| -40        | 99090              | 84450              | 116000             |
| -35        | 75170              | 64460              | 87450              |
| -30        | 57540              | 49630              | 66560              |
| -25        | 44440              | 38540              | 51110              |
| -20        | 34600              | 30170              | 39590              |
| -15        | 27160              | 23800              | 30910              |
| -10        | 21480              | 18920              | 24320              |
| -5         | 17110              | 15140              | 19280              |
| 0          | 13720              | 12200              | 15390              |
| 5          | 11080              | 9890               | 12370              |
| 10         | 9001               | 8073               | 10010              |
| 15         | 7357               | 6626               | 8148               |
| 20         | 6048               | 5469               | 6672               |
| 25         | 5000               | 4539               | 5495               |
| 30         | 4156               | 3786               | 4550               |
| 35         | 3472               | 3174               | 3787               |
| 40         | 2914               | 2674               | 3168               |
| 45         | 2458               | 2263               | 2663               |
| 50         | 2083               | 1924               | 2249               |
| 55         | 1773               | 1643               | 1908               |
| 60         | 1515               | 1408               | 1626               |
| 65         | 1300               | 1212               | 1391               |
| 70         | 1120               | 1047               | 1195               |
| 75         | 968,3              | 908                | 1030               |
| 80         | 840,4              | 790,2              | 891,5              |
| 85         | 731,9              | 690,1              | 774,4              |
| 90         | 639,7              | 604,6              | 675                |
| 95         | 540,8              | 531,5              | 590,3              |
| 100        | 493,3              | 468,6              | 518                |
| 105        | 435,2              | 412,5              | 458,1              |
| 110        | 385,1              | 364,2              | 406,3              |
| 115        | 341,8              | 322,4              | 361,4              |
| 120        | 304,2              | 286,3              | 322,3              |
| 125        | 271,4              | 255                | 288,3              |

figure 1. Thermistor

Typical NTC characteristic as a function of temperature

$R = f(T)$

