

Temperature Measurement B57164
Leaded Disks K 164

#### **Applications**

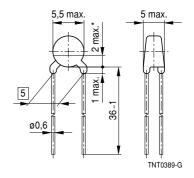
- Temperature compensation
- Temperature measurement
- Temperature control

#### **Features**

- Wide resistance range
- Cost-effective
- Lacquer-coated thermistor disk
- Tinned copper leads
- Lead spacing 5,0 mm
- Marked with resistance and tolerance

#### **Delivery mode**

Bulk (standard), cardboard tape, reeled or in Ammo pack



\*May be free of lacquer

Dimensions in mm Approx. weight 0,4 g

| Climatic category (IEC 60068-1)        | 55/125/21            |               |      |
|--|----------------------|---------------|------|
| Max. power at 25 °C                    | $P_{25}$             | 450           | mW   |
| Resistance tolerance                   | $\Delta R_{N}/R_{N}$ | ± 5 %, ± 10 % |      |
| Rated temperature                      | $T_{N}$              | 25            | °C   |
| B value tolerance                      | $\Delta B/B$         | ± 3 %         |      |
| Dissipation factor (in air)            | $\delta_{th}$        | approx. 7,5   | mW/K |
| Thermal cooling time constant (in air) | $\tau_{\mathbf{c}}$  | approx. 20    | s    |
| Heat capacity                          | $C_{th}$             | approx. 150   | mJ/K |

| R <sub>25</sub> | No. of <i>R/T</i> characteristic | B <sub>25/100</sub> | Ordering code   |
|-----------------|----------------------------------|---------------------|-----------------|
| Ω               |                                  | K                   |                 |
| 15              | 1203                             | 2900                | B57164K0150+000 |
| 22              | 1203                             | 2900                | B57164K0220+000 |
| 33              | 1203                             | 2900                | B57164K0330+000 |
| 47              | 1302                             | 3000                | B57164K0470+000 |
| 68              | 1303                             | 3050                | B57164K0680+000 |
| 100             | 1305                             | 3200                | B57164K0101+000 |
| 150             | 1305                             | 3200                | B57164K0151+000 |
| 220             | 1305                             | 3200                | B57164K0221+000 |
| 330             | 1306                             | 3450                | B57164K0331+000 |
| 470             | 1306                             | 3450                | B57164K0471+000 |



| Temperature Measurement | B57164 |
|-------------------------|--------|
| Leaded Disks            | K 164  |

| R <sub>25</sub> | No. of <i>R/T</i> characteristic | B <sub>25/100</sub> | Ordering code   |
|-----------------|----------------------------------|---------------------|-----------------|
| Ω               | Characteristic                   | к                   |                 |
| 1 k             | 1011                             | 3730                | B57164K0102+000 |
| 1,5 k           | 1013                             | 3900                | B57164K0152+000 |
| 2,2 k           | 1013                             | 3900                | B57164K0222+000 |
| 3,3 k           | 4001                             | 3950                | B57164K0332+000 |
| 4,7 k           | 4001                             | 3950                | B57164K0472+000 |
| 6,8 k           | 2903                             | 4200                | B57164K0682+000 |
| 10 k            | 2904                             | 4300                | B57164K0103+000 |
| 15 k            | 1014                             | 4250                | B57164K0153+000 |
| 22 k            | 1012                             | 4300                | B57164K0223+000 |
| 33 k            | 1012                             | 4300                | B57164K0333+000 |
| 47 k            | 4003                             | 4450                | B57164K0473+000 |
| 68 k            | 2005                             | 4600                | B57164K0683+000 |
| 100 k           | 2005                             | 4600                | B57164K0104+000 |
| 150 k           | 2005                             | 4600                | B57164K0154+000 |
| 220 k           | 2007                             | 4830                | B57164K0224+000 |
| 330 k           | 2006                             | 5000                | B57164K0334+000 |
| 470 k           | 2006                             | 5000                | B57164K0474+000 |

<sup>+:</sup> J for  $\Delta R_{\rm N}/R_{\rm N}=\pm~5~\%$  K for  $\Delta R_{\rm N}/R_{\rm N}=\pm~10~\%$ 

# Reliability data

| Test                | Standard   | Test conditions                 | $\Delta R_{25}/R_{25}$ (typ.) | Remarks    |
|---------------------|------------|---------------------------------|-------------------------------|------------|
| Storage in          | IEC        | Storage at upper category       | < 3 %                         | No visible |
| dry heat            | 60068-2-2  | temperature T: 125 °C           |                               | damage     |
|                     |            | <i>t</i> : 1000 h               |                               |            |
| Storage in damp     | IEC        | Temperature of air: 40 °C       | < 3 %                         | No visible |
| heat, steady state  | 60068-2-3  | Relative humidity of air: 93 %  |                               | damage     |
|                     |            | Duration: 21 days               |                               |            |
| Rapid temperature   | IEC        | Lower test temperature: - 55 °C | < 3 %                         | No visible |
| cycling             | 60068-2-14 | Upper test temperature: 125 °C  |                               | damage     |
|                     |            | Number of cycles: 100           |                               |            |
| Endurance           |            | P <sub>max</sub> : 450 mW       | < 3 %                         | No visible |
|                     |            | t: 1000 h                       |                               | damage     |
| Long-term stability |            | Temperature: 125 °C             | < 5 %                         | No visible |
| (empirical value)   |            | t: 10 000 h                     |                               | damage     |

#### Herausgegeben von EPCOS AG

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