

### Applications

- Temperature compensation (chassis mounting)
- Temperature measurement (chassis mounting)
- Temperature control (chassis mounting)

### Features

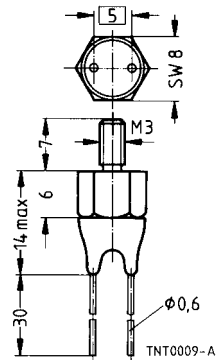
- Cost-effective
- Good thermal coupling through screw-type case (thread M3)
- Electrically isolated aluminum case  
 $R_{is} > 100 \text{ M}\Omega$  ( $V = 100 \text{ V dc}$ );  $V_{is} = 2500 \text{ V}$  (test duration: 1 s)
- Tinned copper leads

### Options

Closer resistance tolerance available on request

### Delivery mode

Bulk



Dimensions in mm  
Approx. weight 1 g

|                                            |                  |             |      |
|--------------------------------------------|------------------|-------------|------|
| Climatic category (IEC 60068-1)            |                  | 55/125/56   |      |
| Max. power at 25 °C                        | $P_{25}$         | 450         | mW   |
| Resistance tolerance                       | $\Delta R_N/R_N$ | $\pm 10 \%$ |      |
| Rated temperature                          | $T_N$            | 25          | °C   |
| B value tolerance                          | $\Delta B/B$     | $\pm 3 \%$  |      |
| Dissipation factor (in air)                | $\delta_{th}$    | approx. 9   | mW/K |
| Dissipation factor (on chassis)            | $\delta_{th}$    | approx. 20  | mW/K |
| Thermal cooling time constant (in air)     | $\tau_c$         | approx. 75  | s    |
| Thermal cooling time constant (on chassis) | $\tau_c$         | approx. 15  | s    |
| Torque                                     |                  | approx. 0,5 | Nm   |

| $R_{25}$ | No. of $R/T$ characteristic | $B_{25/100}$ | Ordering code   |
|----------|-----------------------------|--------------|-----------------|
| $\Omega$ |                             | K            |                 |
| 1 k      | 1011                        | 3730         | B57045K0102K000 |
| 2,2 k    | 1013                        | 3900         | B57045K0222K000 |
| 4,7 k    | 4001                        | 3950         | B57045K0472K000 |
| 6,8 k    | 2903                        | 4200         | B57045K0682K000 |
| 10,0 k   | 2904                        | 4300         | B57045K0103K000 |
| 33 k     | 1012                        | 4300         | B57045K0333K000 |
| 47 k     | 4003                        | 4450         | B57045K0473K000 |
| 68 k     | 2005                        | 4600         | B57045K0683K000 |
| 100 k    | 2005                        | 4600         | B57045K0104K000 |
| 150 k    | 2005                        | 4600         | B57045K0154K000 |

### Reliability data

| Test                                  | Standard       | Test conditions                                                                           | $\Delta R_{25}/R_{25}$<br>(typical) | Remarks           |
|---------------------------------------|----------------|-------------------------------------------------------------------------------------------|-------------------------------------|-------------------|
| Storage in dry heat                   | IEC 60068-2-2  | Storage at upper category temperature<br>$T$ : 125 °C<br>$t$ : 1000 h                     | < 3 %                               | No visible damage |
| Storage in damp heat, steady state    | IEC 60068-2-3  | Temperature of air: 40 °C<br>Relative humidity of air: 93 %<br>Duration: 56 days          | < 3 %                               | No visible damage |
| Rapid temperature cycling             | IEC 60068-2-14 | Lower test temperature: – 55 °C<br>Upper test temperature: 125 °C<br>Number of cycles: 10 | < 3 %                               | No visible damage |
| Endurance                             |                | $P_{\max}$ : 450 mW<br>$t$ : 1000 h                                                       | < 3 %                               | No visible damage |
| Long-term stability (empirical value) |                | $T$ : 125 °C<br>$t$ : 10 000 h                                                            | < 5 %                               | No visible damage |

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