

EPCOS Sample Kit 2012

## **PTC** Thermistors

Heating Elements for 12 V Applications





## **PTC Thermistors**

| Heating element | ts for 12 V | applications |
|-----------------|-------------|--------------|
|-----------------|-------------|--------------|

| Туре   | T <sub>ref</sub><br>(typ.) | R <sub>min</sub><br>(V = V <sub>R</sub> ) | T <sub>surf</sub> <sup>1)</sup><br>(V = V <sub>B</sub> ) | R <sub>R</sub><br>(V <sub>meas</sub> ≤ 1.5 V) | V <sub>BD</sub> | Curvature | Ordering code   |    | Dimensional drawing | g                        |  |
|--|----------------------------|---|--|---|-----------------|-----------|-----------------|----|---------------------|--------------------------|--|
|  | °C                         | Ω   | °C   | $\Omega$                                      | v               | mm        |                 |    |                     |                          |  |
| $V_{max} = 30 \text{ V DC}, V_{R} = 12 \text{ V DC}$ |                            |   |  |   |                 |           |                 |    |                     |                          |  |
| A60  | 0                          | 202)                                      | 40   | ≥ 320   | > 36            | < 0.2     | B59060A0000A010 | 1  |                     | Π                        |  |
| A60  | 40                         | 42)                                       | 70   | 9 ±30%  | > 36            | < 0.2     | B59060A0040A010 | 2  |                     |                          |  |
| A60  | 60                         | 5   | 80   | 9 ±30%  | > 36            | < 0.2     | B59060A0060A010 | 3  |                     |                          |  |
| A60  | 80                         | 4   | 95   | 9 ±30%  | > 36            | < 0.2     | B59060A0080A010 | 4  |                     | Ц                        |  |
| A60  | 120                        | 4   | 130  | 9 ±30%  | > 36            | < 0.2     | B59060A0120A010 | 5  | 12±0.2              | 1±0.2                    |  |
| A60  | 160                        | 3   | 165  | 9 ±30%  | > 36            | < 0.2     | B59060A0160A010 | 6  | Termination TP1     | T0457-Q-E                |  |
| A60  | 180                        | 3   | 185  | 9 ±30%  | > 36            | < 0.2     | B59060A0180A010 | 7  |                     | 10407 412                |  |
| $V_{max} = 20 \text{ V DC}, V_{R} = 12 \text{ V DC}$ |                            |   |  |   |                 |           |                 |    |                     |                          |  |
| R41  | 80                         | 1.00                                      | 110  | 3.2 ±50%                                      | > 40            | < 0.05    | B59041R0080A010 | 8  |                     |                          |  |
| R41  | 120                        | 1.00                                      | 145  | 3.2 ±50%                                      | > 40            | < 0.05    | B59041R0120A010 | 9  | 05.4                | 6.2±0.2                  |  |
| R41  | 160                        | 0.75                                      | 180  | 3.2 ±50%                                      | > 40            | < 0.05    | B59041R0160A010 | 10 | 35±1 -              | →   <b>→</b> T<br>4±0.06 |  |
| R41  | 180                        | 0.75                                      | 200  | 3.2 ±50%                                      | > 40            | < 0.05    | B59041R0180A010 | 11 | Termination         | TPT0240-I-E              |  |
| R41  | 220                        | 1.00                                      | 230  | 6.4 ±50%                                      | > 40            | < 0.05    | B59041R0220A010 | 12 |                     |                          |  |

## **Application examples:**

• A60: Automotive applications such as diesel fuel preheating, defrosting (e.g. spray nozzle heating)/ low-voltage home appliances

• R41: Automotive applications such as diesel fuel preheating, defrosting, additional cabin heating/ low-voltage home appliances

Data sheets are available at: www.epcos.com/ptc\_heating

1) Measured between points

2) T (R<sub>PTC</sub> = R<sub>min</sub>) < 25 °C

Important information: It is incumbent on the customer to check and decide whether a product is suitable for use in a particular application. Our products are described in detail in our data sheets. Our Important notes and the product-specific Cautions and warnings must be observed. All relevant information is available through our sales offices.