



Sample Kit

# PTC Thermistors

Heating elements  
for high-voltage applications

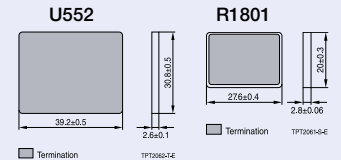
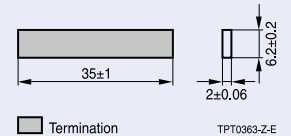
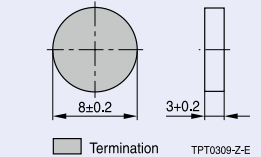


[www.tdk-electronics.tdk.com](http://www.tdk-electronics.tdk.com)



## PTC Thermistors – Heating elements for high-voltage applications

| Type  | T <sub>ref</sub><br>(typ.)<br>°C | R <sub>min</sub><br>(V = V <sub>R</sub> )<br>V | T <sub>surf</sub> <sup>1)</sup><br>(V = V <sub>R</sub> )<br>°C | R <sub>R</sub><br>(V <sub>meas</sub> ≤ 1.5 V)<br>V | V <sub>BD</sub><br>V | Curvature<br>mm | Ordering code   | Dimensional drawing |
|---|----------------------------------|--|--|--|----------------------|-----------------|-----------------|---------------------|
| <b>V<sub>max</sub> = 265 V AC, V<sub>R</sub> = 230 V AC</b> |                                  |  |  |  |                      |                 |                 |                     |
| A53   | 110                              | 960  | 135  | 4200 ±35%  | 500                  | < 0.2           | B59053A0110A010 | <b>1</b>            |
| A53   | 150                              | 700  | 170  | 4200 ±35%  | 500                  | < 0.2           | B59053A0150A010 | <b>2</b>            |
| A53   | 180                              | 530  | 200  | 4200 ±35%  | 500                  | < 0.2           | B59053A0180A010 | <b>3</b>            |
| A53   | 220                              | 640  | 235  | 6000 ±35%  | 500                  | < 0.2           | B59053A0220A010 | <b>4</b>            |
| R102  | 50                               | 225 <sup>2)</sup>                              | 100  | 700 ±50%   | 400                  | < 0.05          | B59102R0050A010 | <b>5</b>            |
| R102  | 70                               | 130  | 115  | 700 ±50%   | 400                  | < 0.05          | B59102R0070A010 | <b>6</b>            |
| R102  | 110                              | 100  | 145  | 700 ±50%   | 400                  | < 0.05          | B59102R0110A010 | <b>7</b>            |
| R102  | 130                              | 105  | 160  | 700 ±50%   | 400                  | < 0.05          | B59102R0130A010 | <b>8</b>            |
| R102  | 150                              | 90   | 180  | 700 ±50%   | 400                  | < 0.05          | B59102R0150A010 | <b>9</b>            |
| R102  | 180                              | 66   | 205  | 700 ±50%   | 400                  | < 0.05          | B59102R0180A010 | <b>10</b>           |
| <b>V<sub>max</sub> = 750 V DC, V<sub>R</sub> = 600 V DC</b> |                                  |  |  |  |                      |                 |                 |                     |
| U552  | 195                              | 75 ... 225                                     | 225  | Typical 1350                                       | 1000                 | < 0.05          | B59552U0195B010 | <b>11</b>           |
| <b>V<sub>max</sub> = 870 V DC, V<sub>R</sub> = 800 V DC</b> |                                  |  |  |  |                      |                 |                 |                     |
| R1801   | 180                              | 390 ... 975 (@V <sub>max</sub> )               | 215  | Typical 6800                                       | 1200                 | < 0.05          | B59801R1180B010 | <b>12</b>           |



### Application examples:

- A53: Home appliances such as washing machine door locks, thermal actuators, insecticide and perfume vaporizers
- R102: Home appliances such as hair curlers, fan heaters, coffee machines, glue guns
- U552/R1801: Automotive applications such as cabin heating and battery heating

<sup>1)</sup> Measured between points, <sup>2)</sup> T (R<sub>PTC</sub> = R<sub>min</sub>) < 25 °C

**Data sheets are available at:**  
[www.tdk-electronics.tdk.com/ptc\\_heating](http://www.tdk-electronics.tdk.com/ptc_heating)  
**Content: 3 pcs per ordering code**

**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.