NTC Thermistor
ERT Series

1 What is a NTC Thermistor?

NTC Thermistor is a ceramic that changes its resistance value as the ambient temperature changes.

NTC Thermistors can be used for temperature detection and temperature compensation of the electronic devices.

2 ERT Series Overview

Automotive Series Line-Up (AEC-Q200)
- 0402, 0603
- 2kΩ to 470kΩ

Industry (STD Tolerance 3% / 5%)
- 0201, 0402, 0603
- 2kΩ to 470kΩ

Industry (Narrow Tolerance 1% / 2%)
- 0201, 0402, 0603
- 10kΩ to 220kΩ

3 Key Points

- Surface Mount Device (01005, 0201, 0402, 0603)
- Highly reliable multilayer / monolithic structure / unique electrode design (temperature operating range - 40 to 150°C)
- High temperature accuracy by adapting our original electrode structure
- High accuracy from 1% tolerance available
- AEC-Q200 qualified

4 Applications

- Smart Meter
- Lighting (LED Driver, Light Control Unit)
- Battery Management Systems
- Power & Steering (Engine Control, Oil/Fuel Pump, Power Steering)
- Body & Security (Climate Control, Sunroof, ABS / ESP / TCS / Brakes)
- Infotainment (Display/Navi, Radar, Intercom System)
Key Data

- Panasonic’s high-resistance layer enables:
- No resistance change due to external factors such as reflow soldering, ambient environment and harsh atmosphere.

→ High-precision temperature measuring throughout the lifetime

Panasonic Portfolio

<table>
<thead>
<tr>
<th>Series</th>
<th>High precision type (narrow tolerance)</th>
<th>Standard type</th>
<th>Automotive type</th>
</tr>
</thead>
<tbody>
<tr>
<td>PN</td>
<td>ERIJ<em><strong><strong><em>F</em> / ERIJ</strong></strong>**G</em></td>
<td>ERIJ<em><strong><strong><em>H</em> / ERIJ</strong></strong>**J</em></td>
<td>ERIJ******M</td>
</tr>
<tr>
<td>Size</td>
<td>01005 – 0603</td>
<td>01005 – 0683</td>
<td>0402, 0603</td>
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<tr>
<td>Resistance Value</td>
<td>R25: 10 – 220 kΩ ± 1%, 2%</td>
<td>R25: 0.022 – 470 kΩ ± 3%, 5%</td>
<td>R25: 1 – 470 kΩ ± 1%, 2%, 3%, 5%</td>
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<tr>
<td>B value</td>
<td>B25/50: 3380 – 4700 K ± 1%</td>
<td>B25/50: 2750 – 4700 K ± 2%, 3%</td>
<td>B25/50: 3380 – 4700 K ± 1%</td>
</tr>
</tbody>
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For more information please visit: industry.panasonic.eu