



Sample Kit 2010



SMD NTC Thermistors for Temperature Measurement and Compensation in Automotive Applications

What are SMD NTC thermistors?

- As defined by IEC 60539, NTC (Negative Temperature Coefficient) thermistors are thermally sensitive semiconductor resistors which show a decrease in resistance as temperature increases.
- SMD NTCs are designed for temperature measurement and compensation.

Benefits for customer applications

- Qualification based on AEC-Q200, Rev. C
- For temperature measurement up to 150 °C
- Available case sizes 0402, 0603 and 0805
- Resistance values 4.7 up to 100 k Ω
- Different B values
- Excellent long-term aging stability in high-temperature environment
- Nickel barrier termination and lead-free solderability



Important information: Some parts of this publication contain statements about the suitability of our products for certain areas of application. These statements are based on our knowledge of typical requirements that are often placed on our products. We expressly point out that these statements cannot be regarded as binding statements about the suitability of our products for a particular customer application. It is incumbent on the customer to check and decide whether a product is suitable for use in a particular application. This publication is only a brief product survey which may be changed from time to time. Our products are described in detail in our data sheets. The *Important notes* (www.epcos.com/ImportantNotes) and the product-specific *Cautions and warnings* must be observed. All relevant information is available through our sales offices.

Components

B57251 V5472J60	B57251 V5103J60		B57351 V5103J60	B57352 V5103J60	B57351 V5223J60	B57352 V5223J60	B57352 V5473J60	B57352 V5104J60
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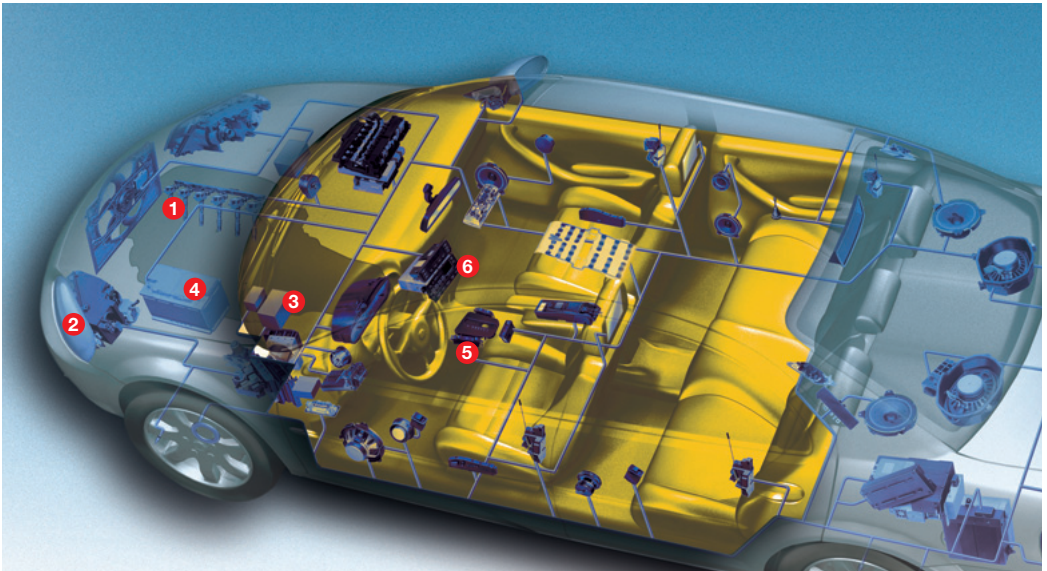
B57452 V5472J62	B57451 V5103J62	B57452 V5103J62	B57451 V5333J62	B57452 V5104J62				
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Product Range

Electrical specifications and ordering codes					
EIA case size	R ₂₅ [kΩ]	B _{25/50} [K]	B _{25/85} [K]	B _{25/100} [K]	Ordering code
Case size 0402					
0402	4.7	3940	3980	4000 ±3%	B57251V5472J60
0402	10	3940	3980	4000 ±3%	B57251V5103J60
Case size 0603					
0603	10	3940	3980	4000 ±3%	B57351V5103J60
0603	10	4386	4455	4480 ±3%	B57352V5103J60
0603	22	3940	3980	4000 ±3%	B57351V5223J60
0603	22	4386	4455	4480 ±3%	B57352V5223J60
0603	47	4386	4455	4480 ±3%	B57352V5473J60
0603	100	4386	4455	4480 ±3%	B57352V5104J60
Case size 0805					
0805	4.7	4386	4455	4480 ±3%	B57452V5472J62
0805	10	3940	3980	4000 ±3%	B57451V5103J62
0805	10	4386	4455	4480 ±3%	B57452V5103J62
0805	33	3940	3980	4000 ±3%	B57451V5333J62
0805	100	4386	4455	4480 ±3%	B57452V5104J62

See enclosed CD-ROM for data sheets and further details.

Application examples for SMD NTC thermistors in automotive



- 1 Electronic control unit (ECU),
e.g. tire air pressure, motor management, airbag
- 2 Headlight
- 3 Gear box control
- 4 Temperature control for the battery pack in conventional, hybrid electric and full-electric vehicles
- 5 Sensor system,
e.g. temperature sensors for air conditioning
- 6 Display,
e.g. dash board, car radio, navigation

