EPCOS

Sample Kit 2010

SMD NTC Thermistors

for Temperature Measurement and Compensation in Automotive Applications

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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 kΩ
- Different B values
- Excellent long-term aging stability in high-temperature environment
- Nickel barrier termination and lead-free solderability

Components

B57251 V5472J60	B57251 V5103J60		B57351 V5103J60	B57352 V5103J60	B57351 V5223J60	B57352 V5223J60	B57352 V5473J60	B57352 V5104J60

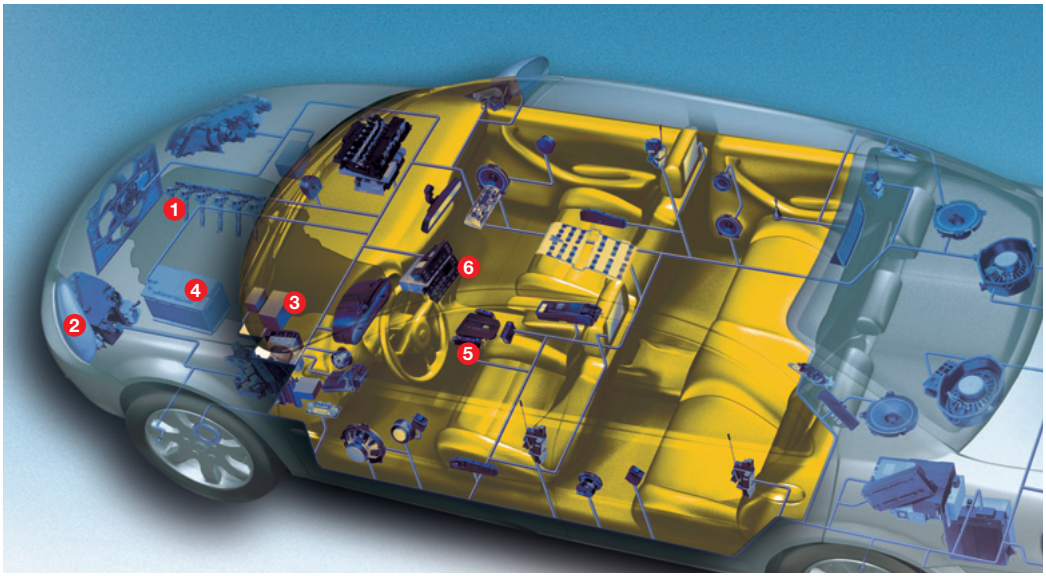
B57452 V5472J62	B57451 V5103J62	B57452 V5103J62	B57451 V5333J62	B57452 V5104J62				

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



Ordering No. B57999V5999J99 · Printed in Germany · SO 0910.3