MANIFOLD AIR TEMPERATURE SENSOR
PART NUMBER 25036751

FEATURES

• Design for Manufacturability
• Cost Effective
• Robust Design
• Few Components & Assembly Processes
• Thermistor Technology
• 100% Calibration Certified

Thermal & Electrical Properties

Typical Voltage Supply 5V dc
Operating Temperature -40°C to 135°C
Resistive Range(Ω) See Table
Dissipation Constant ‡ N/A
Thermal Time Constant ‡‡ < 15 sec
Accuracy See Table

Thermal Time Constant ‡‡

The ratio, at a specified ambient temperature, of the change in the power dissipation of the sensor to the resultant temperature change of the thermistor. Test medium: silicone oil.

‡‡ The time required for the sensor to achieve 63.2% of its steady state value when subjected to a step change in ambient temperature \[T_c=(T_f-T_i)\times63.2\%+T_i\]. Test medium: silicone oil.

Mechanical Characteristics

Sensor Body Material Brass Housing
Connector PBT 30% GF
Basket PBT 40% GF
Hex Size 18.90mm (3/4“)
Thread Size 3/8“-18 NPTF
Sealing Pressure 200 kPa
Mating Connector & Seal 12162197
Installation Torque 20 N-m, dynamic
Overall Weight 33.3 g

Circuit Schematic

5V ECM
Rpull-up

Sensor

A/D Converter

GND

6751 Data Sheet/04.27.99
TEMPERATURE SENSOR
PRODUCT DATA

Note: Temperature Sensor Calibration Resistance Guaranteed by 100 % Automated Calibration Certification.

Unloaded Resistance-Temperature Characteristic Table

<table>
<thead>
<tr>
<th>Temp (°C)</th>
<th>R(Ω)*</th>
<th>R (±%)</th>
<th>Ref. Acc. (±°C)</th>
<th>Temp (°C)</th>
<th>R(Ω)*</th>
<th>R (±%)</th>
<th>Ref. Acc. (±°C)</th>
<th>Temp (°C)</th>
<th>R(Ω)*</th>
<th>R (±%)</th>
<th>Ref. Acc. (±°C)</th>
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Important: The values above are for the unloaded thermistor, as shipped from Packard Electric, and does not reflect the effects of application system errors and aging.

*Note: Please contact PE Engineering for the resistance vs. temperature curve for your temperature sensor application. Due to self-heating effects of the thermistor, the resistance is dependent on the application.

Since thermistors are "continuous function devices", resistance vs. temperature data is available for numbers beyond those specified above.

For more information contact:

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